Overview

The New York State (NYS) Department of Agriculture and Markets (AGM) promotes New York agriculture and its high-quality and diverse products, fosters agricultural environmental stewardship, and safeguards the State’s food supply, plant industry, land, and livestock to ensure the viability and growth of New York’s agricultural industries.

Approximately 20% of New York’s land area, or nearly 7 million acres, is farmland. The State is home to nearly 33,500 family farms producing some of the world’s best food, helping to drive the economy. New York is a major agricultural state, ranking in the top ten in production of 30 commodities. It is first nationally in the production of cream cheese and cottage cheese; second in apples, maple syrup, cabbage, and yogurt; and ranked highly in tart cherries, green peas, and many more.

Section 164 of the Executive Law directs AGM to annually submit a report of its activities to the Governor and the Legislature. This 2021 Annual Report outlines AGM’s actions through its central administration and programmatic divisions, including the divisions of agricultural development, animal industry, food safety and inspection, land and water, milk control and dairy services, plant industry, weights and measures, the Food Laboratory, and the Great NYS Fair. The report also highlights the continued impact of the COVID-19 pandemic on AGM and the agricultural industry in NYS.

Administration

Counsel’s Office

Counsel’s Office provides legal advice and representation to AGM officers under NYS and applicable federal law. Specifically, the division:

- advises on issues arising under State and federal law and responds to requests of governmental entities for interpretation of the Agriculture and Markets Law (AML);
- develops and coordinates AGM’s legislative program, including the drafting of proposals and support memoranda, negotiation of bill language, and the research and analysis of bills relevant to the Department’s work;
- develops regulations and represents AGM in rulemaking proceedings;
- represents AGM in administrative, judicial, and other proceedings, seeking to enforce the AML and respond to challenges to AGM’s actions;
- administers and collects civil penalties;
- provides advice regarding procurement issues and best contracting practices;
- prepares, reviews, and negotiates contracts, grants, and memoranda of understanding;
- provides legal support services to the State Soil and Water Conservation Committee;
- represents the interests of agricultural resources and farmers in proceedings before the Public Service Commission;
- conducts investigations concerning, among other things, possible violations of the AML, AGM personnel matters, and ethics issues;
- performs risk analyses; and
- responds to requests for Department records in conformance with the Public Officers Law.
In 2021, the division completed the following:

| Litigation and Contested Matters | 198 | Regulations | 5 |
| Adjudicatory Proceedings | 71 | Ethics Law Reviews | 81 |
| Contracts | 704 | FOIL Requests | 314 |
| Opinions | 41 | Miscellaneous | 9 |
| Legislation | 2 | Penalty Litigation | 435 |
| Notices of Intent | 122 | Other Agency Proceedings | 16 |

**Fiscal Management**

The Division of Fiscal Management provides financial and office services to support the programs and employees of AGM. The division ensures that State and other resources allocated to the Department are used effectively and in accordance with applicable laws and regulations. Fiscal Management administers all agency budget development, coordination, and execution activities, and all fiscal and business management services. Specifically, the division:

- prepares the annual agency budget request;
- assigns appropriated funds and prepares fiscal plans;
- performs revenue accounting, fiscal monitoring, and budget execution;
- reviews and processes contracts, purchases, and travel vouchers;
- manages all agency spending and reporting requirements for the Minority and Women Owned Business Enterprises program and the Service-Disabled Veterans Business Development program;
- acts as a liaison with the Business Services Center regarding the agency payroll;
- performs office services such as fleet management, space planning, and mailroom operations;
- completes federal grant applications, billings, and indirect cost proposals; and
- manages inventory systems and procedures to safeguard physical assets.

In 2021, the division completed the following:

| Contracts Processed | 722 | Travel Approvals | 65 |
| Vouchers Processed | 4,836 | Size of Vehicle Fleet | 172 |
| MWBE Spending | 24% | SDVOB Spending | 1% |

**Human Resources Management**

The Division of Human Resources Management facilitates AGM’s core mission by ensuring that the agency’s workforce is competent and productive. This is accomplished through the administration of Civil Service Law, rules and regulations, negotiated agreements, and other State and federal laws.

Major responsibilities include recruitment, position classification, exam development, labor relations, and training. Specifically, the division:
• manages agency recruitment and terminations;
• classifies jobs to ensure equitable salary distribution based on position requirements;
• administers disciplinary processes and procedures;
• develops examinations with the NYS Department of Civil Service;
• develops succession plans to ensure agency goals are continually met;
• administers the Performance Evaluation Program;
• presents or arranges for employee training;
• administers compliance with the Americans with Disabilities Act, processes Reasonable Accommodation requests, researches Family Medical Leave Act issues, advises staff on Paid Family Leave Act eligibility, and manages the Ethics Law reporting system;
• administers State and AGM attendance and leave policies; and
• liaises with the Business Services Center regarding health benefits, retirement, payroll, and administration of time and attendance.

The division’s workload continues to be impacted by the COVID-19 pandemic. As the fiscal environment improved in 2021, the division’s recruitment, classification, and onboarding workload resumed. The division also continues to develop and administer new processes because of the COVID-19 pandemic and to ensure essential in-office and field staff remain safe and informed. It also maintains the employee vaccination and testing tool to ensure all employees comply with the vaccination related requirements.

In 2021, the division completed the following:

| New Hires/Appointments (Permanent) | 83 | Reasonable Accommodations | 14 |
| Separations (Permanent) | 58 | Training Referrals | 56 |
| Exam Development | 0 | Staff Trained – Mandatory Issues | All |
| Temporary Separations | 60 | Temporary Hires | 177 |
| Classification Actions | 91 |

Agricultural Development

Staffing

The Division of Agricultural Development has a permanent staff of 27, with one based in Brooklyn, one in Rochester, and the remainder in the Albany office.

Licenses

Farm Products Dealer

The division manages the Farm Products Dealer license. Farm products dealers are businesses that buy or receive at least $20,000 worth of farm products from New York producers annually for the purpose of resale. In 2021, the division licensed 282 farm products dealers and received Non-Dealer Declarations from an additional 38 businesses.
Licensed dealers are required to file security in the form of a bond or letter of credit with AGM. In the event of bankruptcy by a farm products dealer, or for failure to provide timely payment, impacted farms may file a claim with AGM to recover these funds. After review, eligible claims are paid from the bond or letter of credit provided by the farm products dealer. There were no claims in 2021.

If claims exceed an individual dealer’s security, additional financial coverage is provided by the Agricultural Producers Security Fund, which is funded via fees paid by the farm products dealers. The size of the Agricultural Producers Security Fund was approximately $3.16 million at the end of 2021, approximately $131,000 higher than the prior year.

Programs

Taste NY

In 2021, Taste NY store operators worked one-on-one with producers to help them continue to pivot their business models and adjust to consumer needs as the pandemic evolved. As a result of these ongoing efforts, Taste NY sales rebounded from 2020 with over $13.5 million in gross sales revenues. To date, Taste NY has helped more than 1,900 New York companies reach consumers across the state and beyond.

The Great New York State Fair created a new opportunity for Taste NY producers in 2021. A new pop-up market in the Horticulture Building, part of the Taste NY Marketplace, offered fairgoers the ability to shop for their favorite products and discover new items of interest by New York State region. Following the conclusion of the 2021 Fair, products from the pop-up market were made available for purchase through ShopTasteNY.com, thereby giving vendors additional visibility, and allowing fairgoers to easily purchase products and have them delivered right to their doorstep. In August, ShopTasteNY.com was featured in the New York Times, which immediately boosted visibility for New York State producers and increased traffic to the ShopTasteNY website by 600% as compared to August 2020.

Taste NY continued to increase its presence at attractions across the state by adding locations at Walkway Over the Hudson, SUNY Rockland, and within State Parks. Taste NY products are now available at more than 70 locations statewide, including:

- 11 NYS Welcome Centers;
- stand-alone markets, such as Todd Hill and Front Street Thruway travel plazas;
- State parks;
- airports;
- train stations;
- concessions at sports and entertainment venues; and
- the NYS Office of Trade and Tourism in San Juan, Puerto Rico.

The exposure from Taste NY continues to help the New York farms and companies participating in the program reach more customers and increase online sales. Taste NY’s food and beverage businesses also support the state’s farmers by using New York grown and produced ingredients in their products.

NYS Grown & Certified

In 2021, New York State Grown & Certified (NYS G&C) producers continued to play a critical role
in supplying food to programs like Nourish New York, Restaurant Resiliency, and Farm-to-School. The program was a valuable resource to New York’s food banks and schools as NYS G&C helped them to identify products grown in NYS by producers who participate in environmental sustainability programs and carry food safety certifications.

Throughout the COVID-19 pandemic, resources like the map search feature on the NYS G&C website (certified.ny.gov) enabled institutions and consumers to connect with local producers. Additionally, a digital version of the NYS G&C Buyer’s Guide was added to the NYS G&C website and distributed at trade shows, conferences, the Great New York State Fair, and other events.

NYS G&C had a significant presence at the 2021 New York Produce Show with a special pavilion space, branded breakfast, and chef demonstrations featuring vegetables grown on the NYS G&C rooftop farm at the Javits Center. NYS G&C shared booth space and partnered with New York State producer associations to provide samples and meet with buyers. As a result, ten New York City retailers, including Fairway Markets and Gourmet Garage, became NYS G&C Strategic Partners.

NYS G&C participation through 2021 was approximately 3,160 farms on over 800,000 acres.

**Risk Management Agency Crop Insurance Education**

New York was awarded funding for the Risk Management Agency (RMA) program in 2020-2021. Cornell University continued to provide crop insurance education opportunities to give producers complete information to make informed decisions on the availability and use of crop insurance and risk management tools. Further, the division provided program support to Cornell University by responding to inquiries.

**Farm Product Marketing Order Program**

AGM’s agricultural Marketing Order programs funded eight research projects using more than $237,000 from assessments collected from NYS apple and cabbage growers. In addition to research, Marketing Order programs funded $1.7 million for the promotion and marketing of apples. Services for the Apple Marketing Order (AMO) program were provided by the New York Apple Association through contracts administered by AGM and Empire State Development.

**Farm-to-School Program**

The Farm-to-School Coordinating Committee met online in 2021 to discuss issues related to farm-to-school programs. The Farm-to-School Coordinating Committee brings together stakeholders from across the state to share best practices to advance partnerships with local producers and to increase the use of local foods in schools. The seventh round of Farm-to-School grants was released through a competitive request for proposals and will be awarded in 2022. AGM has continued to work closely with partners across the state, providing funding for a regional Farm-to-School Coordinator at Cornell University and developing programmatic ties with regional and national Farm-to-School organizations. AGM received a 2021 USDA Farm-to-School grant to pilot a database system to help school districts track local purchases and identify qualifying New York products.
FreshConnect Check Program

The FreshConnect Check (FCC) Program provides incentive coupons for the purchase of eligible foods at any operating farmers' market or farm stand in New York. For every $5 in Supplemental Nutrition Assistance Program (SNAP) Electronic Benefit Transfer (EBT) benefits a customer exchanges for SNAP EBT tokens, the market manager may issue a $2 FCC to the customer. Veterans, servicemembers, and their immediate family members may receive FCCs through the Division of Veterans' Services on a first-come, first-served basis, while supplies are available. FCCs may be spent on any SNAP-eligible food item at a farmers’ market or farm stand in New York State. In 2021, FCCs were issued at 87 market locations and 31 Division of Veterans Services offices in NYS, amounting to $538,478 in revenue for more than 500 farmers’ market vendors and farm stand operators.

Supplemental Nutrition Assistance Program (SNAP)

SNAP is the core feeding program for low-income, at-risk populations in the United States. SNAP participants shop using an EBT card. The NYS Wireless EBT Program, administered in partnership with the Farmers Market Federation of New York, has successfully promoted the use of SNAP at farmers' markets and farm stands across NYS through technical assistance, training, and cost-sharing activities. In 2020, SNAP sales at more than 300 direct marketing venues (farmers' markets, farm stands, green carts, community supported agriculture programs, and mobile markets) amounted to more than $3.4 million. The vendor is currently compiling data for the 2021 season.

Wood Products Development Council

Established by statute in 2008, the Wood Products Development Council is tasked with supporting the practice of forestry and the manufacture of wood products. The Council works to improve public understanding of New York’s forests and forest products, and to direct attention and funding to programs and ventures that sustain existing forest product markets and promote the development of new markets. As part of the 2020-2021 budget, funding was $200,000 to support Council operations. The Council continues to convene to discuss industry changes and challenges due to the COVID-19 pandemic and identify strategic investments that contribute to workforce development, applied forestry and forest economy research, and more.

Concord Grape Summit

Grant programs resulting from the 2018 Concord Grape Industry Summit continue to promote the Concord grape industry. Funding also supported a marketing initiative for Concord grapes, targeting winemakers using the Wine and Grape Foundation’s new brand, Boldly NY. AGM continues to partner with the Lake Erie Regional Grape Program to administer the $1.325 million Vineyard Improvement Program and implement cost-sharing measures leading to the successful removal of 330 acres of under-performing Concord vines and replanting of other grapes or agricultural crops.

NYS Council on Hunger and Food Policy

AGM Commissioner Richard A. Ball chairs the State’s Council on Hunger and Food Policy. Launched in 2016 to address food insecurity statewide, this Council advises the State on programs and policies, and facilitates interagency coordination to address food insecurity.
In 2021, the Council conducted one meeting at which representatives of State agencies, non-profit organizations, academia, and agricultural industries came together to discuss strategies for addressing hunger in NYS and improving access to healthy locally grown food. Over the course of the year, the Council discussed barriers to food access brought on by the COVID-19 pandemic, addressed how emergency food providers could be connected to surplus agricultural products, delivered internal updates on ongoing projects, and more.

**Nourish New York**

To help address food insecurity during the COVID-19 pandemic, the State launched the Nourish New York program, initially providing $25 million in financial support to food banks and other emergency food providers to purchase NYS-made milk, yogurt, cheese, vegetables, fruit, meat, and more. The program, which is administered by AGM in collaboration with DOH, supports both families facing food insecurity and New York farmers who are struggling as a result of the loss of markets for their agricultural products during the pandemic. Funding for this critical initiative was expanded in 2020, for a total investment of approximately $35 million, with food banks purchasing more than 21 million pounds of food, equivalent to 17.5 million meals, and impacting more than 4,100 farms.

Nourish New York has been re-funded two more times in 2021, putting total funding for the program at $85 million. Food banks have purchased over 42 million pounds of food, equivalent to 35 million meals, helping over 4,209 businesses across the state. In November 2021, Governor Kathy Hochul signed Nourish New York into permanent law in New York State.

**Diversity and Racial Equity in Agriculture**

The Diversity and Racial Equity Workgroup – a diverse group of 25 New York State growers, advocates, and institutional and industry stakeholders – continued conversations with AGM resulting in the 2021 Diversity and Racial Equity Working Group Report. The report presents four key areas of challenge and issues faced by Black, Indigenous, and People of Color (BIPOC) farmers and producers. The document provides over 20 recommendations for AGM and the agricultural industry moving forward. Based on the report and ongoing discussions with New York’s diverse agriculture community, AGM continues diversity, equity, and inclusion efforts with a focus on:

- access to infrastructure and resources;
- access to education and training;
- access to capital; and
- access to land.

**Aid-to-Localities**

**Agri-Business Child Development**

Agri-Business Child Development (ABCD) is committed to providing the highest quality early childhood education and social services to farm worker and other eligible families across New York State. As a non-profit provider of high quality culturally and linguistically diverse child development services for infants, toddlers, and preschoolers, ABCD ensures that each child receives comprehensive educational, health, and social services. ABCD centers are accredited by the National Association for the Education of Young Children and are licensed by the NYS Office of Children and Family Services. ABCD operates 13 childcare centers across New York
State. Funding is used for daily operations of the childcare centers, staff salaries, and staff training. In 2020, over 1,100 children were served through ABCD childcare centers, as well as 12 prenatal moms. ABCD had over 2,800 staff attend trainings in 2020. State funding was retained for ABCD in 2020-2021 at $9,275,000 and increased to $9,300,000 for 2021-2022.

Local and County Fairs

AGM continues to administer the NYS Agricultural Fairgrounds Infrastructure Improvement Program, which provides capital funding to eligible county and youth fairs across New York State, to aid in improving fairgrounds.

In 2021, AGM established the 2021 NYS Agricultural Fairgrounds Pandemic Response Program, making capital funding available to eligible county and youth fairs to offset the costs associated with unforeseen damage to infrastructure on the fairgrounds due to being underutilized for an extended period due to the COVID-19 pandemic, and to assist with any infrastructure remodeling costs related to implementing the 2021 State Festival and Fair pandemic guidance. Eligible projects for funding included improvements to permanent or temporary facilities used to house or promote agriculture on the fairgrounds. AGM awarded $10,000 in funding to 51 eligible fairs totaling $510,000 under this program.

New York Association of Agricultural Educators

In 2021, 33 New York agricultural educators participated in teacher induction programming. The program had over 11,000 total contact hours in professional development programs, which included training camps, conferences, sessions, mentoring, and school visits.

New York Agriculture in the Classroom Program

Established in 1985, New York Agriculture in the Classroom (NYAITC) is a partnership among Cornell University, AGM, the NYS Education Department, Cornell Cooperative Extension, and New York Farm Bureau. The program's mission is to foster awareness, understanding, and appreciation of how we produce food and fiber, what we eat, and how we live by helping educators, students, and their communities learn about and engage with agriculture and food systems. NYAITC retained its historically high funding level at $380,000 for 2021-2022. This program reaches 500,000 youth each year and serves all 62 counties.

Future Farmers of America

In 2021-2022, Future Farmers of America (FFA) received funding of $842,000. Over 90 schools across NYS received funds to start or upgrade existing agricultural education and FFA programs in 2020. Due to COVID-19, the FFA held a virtual convention in 2020, connecting with 18,500 students online.

New York Farm Viability Institute

AGM provided a total of $1,985,000 in annual funding to the New York Farm Viability Institute (NYFVI) to support research and education projects. NYFVI is an independent non-profit organization led by volunteer farmers that is funded primarily by NYS. By implementing agricultural research and education programs, NYFVI helps New York’s farmers become more profitable, and additionally helps to improve the long-term economic viability and sustainability of New York farms, the food system, and communities. As part of this funding, NYFVI administered
$60,000 in funding for NYS Berry Association research projects and $75,000 for the New York Corn and Soybean Growers Association research projects.

**Federal Activity**

**SNAP-Ed Federal Funding**

In 2017, AGM began overseeing programs that address food-insecure communities by increasing access to fresh foods and providing education on healthy eating and gardening. In partnership with NYS Office of Temporary and Disability Services (OTDA), AGM administers the Supplemental Nutrition Assistance Program Education (SNAP-Ed) Community Growers Grant Program. This statewide grant program is federally funded and available only to not-for-profits and government entities.

The 2021 Community Growers Grant Program provides direct support to community-led gardens and not-for-profit farms that are combating food insecurity in under-resourced areas and helping food insecure communities develop an interest and skillset to grow and cook healthy, locally produced food. Food-based gardening and education is a beneficial activity that leads to the economical production and consumption of healthy and fresh food. This initiative recently expanded to serve nutritionally underserved communities across all of New York State. Additionally, the initiative has bolstered urban farm infrastructure, as project activities included installing new or repairing raised garden beds, installing new or updating existing water access points for the gardens, container gardening, and more.

In 2021, AGM awarded 29 Community Growers grants across the state, totaling $1.3 million in funding. These grants continued to provide crucial resources for growing fresh produce at low or no cost as unemployment rates remained high due to the COVID-19 pandemic and disruptions in the supply chain put many communities at risk of more severe food insecurity. Nutrition education activities aim to increase fruit and vegetable consumption of SNAP-eligible consumers and to reduce the incidence of chronic disease.

Technical assistance for the 2021 Community Growers Grant Program was provided by Cornell Cooperative Extension New York City (CCE NYC) Harvest NY team. CCE NYC and AGM seek to contribute to the successful production, harvesting, safe food handling, sustainability, nutrition, and food access for community gardens across NYS.

Through a separate grant program, the SNAP-Ed funded Food Box grantees sold approximately 7,650 food box shares to nearly 4,700 people across 11 distribution sites in neighborhoods across New York State with high poverty and limited access to fresh produce. These 11 sites represent the currently executed grants of the total 17 Food Box Grants awarded for 2021. Each of the sites provided nutrition education through:

- the distribution of healthy, low-cost recipes, and My Plate nutrition education materials;
- cooking demonstrations;
- ordering of fruits and vegetables for weekly shares;
- assembly of healthy balanced shares containing six to ten seasonal fruits and vegetables;
- technical assistance to customers with respect to the importance of a balanced diet in preventing diet related diseases and the use of fruits and vegetables in such a diet;
- and the actual distribution of weekly shares.

The Food Box program continues to be an impactful investment in existing community-based food
sovereignty initiatives, effectively connecting historically under-resourced communities to affordable, high-quality, NYS grown farm products. AGM also partners with organizations to offer food box operational training and technical SNAP/Food Nutrition Service assistance to grantees free of charge to enhance their programs. AGM receives regular requests for repeat funding, indicating a high demand for this type of food box product. The rapid increase in food insecurity brought on by the COVID-19 pandemic has spiked demand for food boxes in low-income communities.

Specialty Crop Block Grant Program

AGM was awarded $1,234,780 in farm bill federal funds and an additional $1,634,815 in pandemic relief funding from the United States Department of Agriculture (USDA) Specialty Crop Block Grant Program in 2021. Projects aim to improve the profitability and competitiveness of New York’s specialty crop industries. Roughly half the funding supported scientific research focusing on integrated pest management across multiple crops, development of improved genetic material and best management practices for growing chestnuts and hazelnuts, and energy efficient lighting in the greenhouse industry. Funding continues to assist growers in attaining their farm food safety certifications. The remainder of the funds support marketing projects to promote New York crops, including returning in person to the New York Produce Show.

Food Export USA–Northeast

AGM is a member of Food Export USA-Northeast, a non-profit organization that promotes the export of food and agricultural products from the northeast region of the United States. In 2021, 66 NYS food suppliers used Market Access Program funding through Food Export USA-Northeast to help offset the cost of exhibiting at some of the larger international trade shows early in the year and during the pandemic to offset international marketing costs such as website development, translations, and advertising. Over 140 different NYS suppliers also participated in several Food Export USA-Northeast activities, including trade missions, traveling virtually or in person to markets around the globe. During 2021, there were 375 overall activity registrations, 22 new-to-program suppliers, and 66 branded participants.

Farmers’ Market Nutrition Program

In 2021, Farmers’ Market Nutrition Program (FMNP) benefits were distributed to 188,490 families through the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Additional benefits were distributed to 126,172 low-income seniors for the purchase of locally grown fresh fruits and vegetables. More than 800 farmers participated in FMNP at 688 authorized farmers’ markets, farm stands, and mobile markets. The program generated more than $3 million in direct produce sales to participating farms.

New York FarmNet – Farm and Ranch Stress Assistance Network Program

NYS was awarded $500,000 by the USDA’s National Institute of Food and Agriculture under the Farm and Ranch Stress Assistance Network program. These funds are being used to implement a project through New York FarmNet titled “Addressing Farm Stress in New York through Multifaceted Methodologies.” New York FarmNet, operating through Cornell University, will use funds to raise awareness in the agricultural community around available behavioral health services, and to expand upon these services. New York FarmNet will develop a group of skilled trainers in Mental Health First Aid (MHFA) and hold free workshops in MHFA and SAFEtalk (suicide prevention) for farmers and agribusiness professionals across the state.
Animal Industry

Staffing

The Division of Animal Industry (DAI) has a permanent staff of 36 employees, including field and central office veterinarians, animal health inspectors, a director, and support staff.

Licenses and Inspections

Pet Dealer

At the end of 2021, there were 228 licensed pet dealers in New York. The division performed 428 pet dealer inspections and pet dealer educational visits in 2021 and investigated 12 consumer complaints.

There are an estimated 500 rescue organizations in New York and, as of November 2018, all rescues must now register with AGM. As of December 2021, 459 rescue organizations have registered.

Domestic Animal Health Permits and Livestock Markets

The division issues Domestic Animal Health Permits (DAHPs) to livestock and poultry dealers. AGM laws and regulations require dealers to properly identify animals and record the details of all transactions to allow for tracing to the point of origin and disposition. DAI veterinarians and animal health inspectors conducted 396 DAHP inspections on 327 DAHP holders in 2021.

Division field staff also inspect livestock markets to determine compliance with AGM laws and regulations with respect to animal health. In general, market inspections are performed quarterly and consist of a facility inspection, evaluation of cleaning and disinfection procedures, and an inspection of animal identification and recordkeeping practices. In 2021, DAI field veterinarians and animal health inspectors performed 101 livestock market inspections at 28 markets.

Captive Deer Farms

At the end of 2021, there were 190 captive deer farms in New York, representing a total of 226 separate herds. The division performed 181 captive cervid farm inspections in 2021. Division field staff conducted tuberculosis surveillance on 65 captive cervid farms in 2021 through a combination of antemortem testing and postmortem examination of carcasses and/or submission of tissues to the National Veterinary Services Laboratory. In addition, 630 samples were submitted to the Animal Health Disease Center at Cornell for Chronic Wasting Disease (CWD) surveillance. CWD is a transmissible spongiform encephalopathy, and it remains undetermined if humans are susceptible.

Avian Influenza (AI) Surveillance

New York has 87 live bird markets (LBMs): one in Schenectady, one in Syracuse, one in Buffalo, and 84 in or near New York City. The division is active in reducing the threat of Avian Influenza types H5 and H7 in the markets. LBMs are inspected and tested at least once per quarter. During each inspection, poultry health is evaluated, and records are reviewed for compliance with New York State regulations. Poultry dealer facilities are inspected once per
quarter and cleaned and disinfected at least three times per year. Distributor vehicles are inspected if their trucks are curbside at markets when inspections are occurring.

The division’s success is reflected in the chart below.

### 2021 Surveillance

<table>
<thead>
<tr>
<th>2021 Surveillance</th>
<th>Live Bird Markets</th>
<th>Dealers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of inspections – LBM, poultry dealers</td>
<td>296</td>
<td>20</td>
<td>316</td>
</tr>
<tr>
<td>Number of C&amp;D Inspections</td>
<td>324</td>
<td>12</td>
<td>336</td>
</tr>
<tr>
<td>Number of birds tested</td>
<td>21,162</td>
<td>339</td>
<td>21,501</td>
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<tr>
<td>Number of environmental samples tested (#swabs)</td>
<td>5,575</td>
<td>125</td>
<td>5,700</td>
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<tr>
<td>Number of RRT-PCR tests (poultry samples)</td>
<td>3,451</td>
<td>35</td>
<td>3,486</td>
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<tr>
<td>Number positive tests (H5/H7)</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>Number of RRT-PCR Environmental</td>
<td>33</td>
<td>0</td>
<td>33</td>
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<tr>
<td>Number of virus isolation tests (environmental)</td>
<td>1,115</td>
<td>25</td>
<td>1,140</td>
</tr>
<tr>
<td>Number positive tests (H5/H7)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**AI Testing in Other Poultry Sectors (Non-LBM):**

Avian Influenza testing was also performed in commercial egg-layer flocks (eight), backyard and exhibition flocks (57), raised-for-release upland game bird flocks (three), and egg-type multiplier flocks (seven). For these flocks, there were 459 RRT-PCR tests and 1,245 AGID tests conducted during 2021. The total number of birds tested (non-LBM) was 5,235. All results from NPIP testing were negative for avian influenza.

**NYS Cattle Health Assurance Program**

The NYS Cattle Health Assurance Program (NYSCHAP) is an integrated disease prevention
program whose purpose is to increase herd health, productivity, and profitability while boosting food safety, public health, and consumer confidence in dairy and beef products. As of December 2021, there were 634 active farms in NYSCHAP: 441 dairy farms, 99 beef herds, 88 sheep and goat farms, and six other farms.

NYSCHAP covers approximately 40% of NYS dairy cows (approximately 250,000 dairy cows of the 625,000 total dairy cows in the state). Out of the 3,569 dairy farms in NYS, 12% of these are participating in NYSCHAP. Approximately 47% of the 15.3 billion pounds of milk produced in NYS annually is from NYSCHAP farms. In 2021:

- There were 45 new enrollments in NYSCHAP (nine dairy, 15 beef, 20 sheep and goat herds, and one cervid herd).
- 270 NYSCHAP visits occurred.
- There were various outreach activities to promote NYSCHAP, including presentations and articles published on herd health; biosecurity; disease identification, prevention, and control; animal care, food safety; and drug residue avoidance.
- The NYSCHAP course resumed at the Cornell Veterinary School in the spring of 2021. Eight third- and fourth-year veterinary students interested in food animal medicine attended the course. The course included identification, prevention, and control of cattle diseases; addressing herd management challenges; and herd planning. Three farm trips allowed the students to work through the NYSCHAP process and begin their NYSCHAP certification.

Dog Control Officers and Municipal Shelters

DAI field staff are responsible for evaluating the conduct of dog control officers (DCOs) and municipal shelters. There are 552 DCOs and 259 municipal shelters in New York State. Routine inspections occur on an annual basis. All shelter inspections are unannounced. Inspectors assess transport, housing, veterinary care, and disposition of seized dogs as required under AGM Law Article 7, Sections 113, 114, and 117 and NYCRR Title I, Parts 77, 78, and 79. Division staff performed 625 DCO inspections and 357 shelter inspections during 2021.

Programs

- Through the Companion Animal Capital Fund (CACF), grant funds were available for the costs of capital projects, including construction, renovation, rehabilitation, installation, acquisition, or expansion of buildings, equipment, or facilities necessary for the care of sheltered dogs and cats. DAI staff monitored 25 projects throughout 2021. Of those, 15 contracts are currently active from previous grant cycles. Ten construction projects were completed; five entities withdrew from their contracts primarily due to COVID-19 hardships. In November, two Companion Animal Capital Fund Grant Request for Proposals (RFPs) were released, gearing up for the 2022 calendar year. A total of $6 million dollars was made available to both municipal and non-municipal entities.

Federal/Interstate Activity

The Department administers a federal Food and Drug Administration (FDA) contract for judicious antibiotic use and drug residue avoidance initiatives. DAI completed the following deliverables under this contract in 2021:
There were several virtual outreach events presenting information on judicious drug usage and drug residue avoidance to private veterinarians.

AGM partnered with other industry stakeholders, such as milk cooperatives and the New York Beef Producers Association, for outreach and dissemination of materials.

Due to the COVID-19 pandemic, AGM did not hold large in person farmer meetings. Outreach was done through articles and advertisements in industry publications such as Farm Bureau’s Grassroots newsletter and Country Folks magazine.

AGM continued to work with farms on drug residue avoidance through virtual means as well as in person farm visits when allowed. In 2021, 91 initial and follow up farm visits were performed discussing judicious drug use and proper recordkeeping.

There was dissemination of educational materials as well as Treatment Record Booklets to aid farms with proper recordkeeping of drug administration.

**Interstate Movement of Livestock**

Division staff examine Certificates of Veterinary Inspection (CVIs) for animals imported and exported in and out of the state. In 2021, DAI clerks processed a total of 39,629 CVIs for animals imported into New York, and 11,623 CVIs for animals exported.

The following table shows the distribution by species.

<table>
<thead>
<tr>
<th></th>
<th>Export CVIs</th>
<th></th>
<th>Import CVIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bovine</td>
<td>2,234</td>
<td>Bovine</td>
<td>1,277</td>
</tr>
<tr>
<td>Equine</td>
<td>7,270</td>
<td>Equine</td>
<td>8,383</td>
</tr>
<tr>
<td>Swine</td>
<td>366</td>
<td>Swine</td>
<td>565</td>
</tr>
<tr>
<td>Ovine</td>
<td>248</td>
<td>Ovine</td>
<td>265</td>
</tr>
<tr>
<td>Caprine</td>
<td>180</td>
<td>Caprine</td>
<td>190</td>
</tr>
<tr>
<td>Cervid</td>
<td>34</td>
<td>Cervid</td>
<td>13</td>
</tr>
<tr>
<td>Camelidae</td>
<td>161</td>
<td>Camelidae</td>
<td>98</td>
</tr>
<tr>
<td>Avian</td>
<td>8</td>
<td>Avian</td>
<td>38</td>
</tr>
<tr>
<td>Canine/Feline</td>
<td>1,122</td>
<td>Canine/Feline</td>
<td>28,800</td>
</tr>
</tbody>
</table>

**Foreign Animal Disease Investigations**

DAI has ten Foreign Animal Disease Diagnosticians (FADDs) on staff to investigate possible cases of foreign animal disease. Rapid detection of foreign animal disease is critical for containment and eradication. In total, DAI performed 31 FAD investigations on numerous species including nine bovine, six swine, 12 rabbits, two equine, one camelid, and one aquatic. All laboratory results were negative for foreign animal diseases, except for one rabbit that tested positive for Rabbit Hemorrhagic Disease Virus-2.

DAI field staff conducted 137 inspections of swine feeder premises in 2021. These inspections provide the opportunity to disseminate information on garbage feeding prohibitions, foreign animal diseases (African Swine Fever and hog cholera, swine brucellosis), and official identification and movement requirements for swine. Many small producers are unaware of these issues prior to being contacted by division staff.
Food Laboratory

Staffing

In 2021, the Food Laboratory had 34 permanent staff. Senior staff at the Food Laboratory have degrees in the natural sciences, with majors in biology, chemistry, environmental, microbiology, or other related fields. Additional temporary staff scientists work under the supervision and direction of Food Laboratory personnel.

Licenses and Accreditations

The Food Laboratory holds the accreditation from the International Organization for Standardization (ISO/IEC 17025:2017) and additional criteria established by the International Association of Official Analytical Chemists American Laboratory Accreditation Criteria Committee (AOAC-I ALACC). In 2021, the Food Laboratory performed testing on 60 chemistry proficiency samples (570 analyses with 99% acceptable results), 58 microbiological proficiency samples (39 analyses with 93% acceptable results), and three Pesticide Data Program (PDP) proficiency rounds (35 compounds reported with 100% acceptable results). Participation in proficiency testing programs is necessary to maintain the laboratory’s ISO accreditation status through the American Association for Laboratory Accreditation.

Programs

In 2021, the Food Laboratory confirmed presence of *Listeria monocytogenes* in raw milk, raw milk cheese, mortadella, ham, cooked smoked beef, turnip greens, and smoked fish. It also played a role in testing environmental samples as part of local investigation on determining the source of *L. monocytogenes* contamination.

During the COVID-19 pandemic, Food Laboratory staff continued to report to work on-site and conduct routine work. In addition, staff played a critical role assisting with the Emergency Operations Center and COVID-19 vaccination sites.

Federal/Interstate Activity

The Food Laboratory managed a cooperative agreement with the USDA Agricultural Marketing Service to support the Pesticide Data Program (PDP). In 2021, the laboratory continues as a grantee of the FDA Laboratory Flexible Funding Model. FDA offered 15 project options. The Food Laboratory proposed seven projects and received funding for all of them. These funds are used to increase the amount of testing for biological and chemical contaminants, maintain whole genome sequencing programs, and build laboratory capability and capacity.

Food Laboratory staff also participated in three National Partnership for Food Protection workgroups and helped implement significant components of the Food Safety Modernization Act.

Analytical Tests and Outcomes

In 2021, the Food Laboratory received 20,940 samples and performed approximately 411,059 analytical tests on various food, feed, industrial hemp, and fertilizer products to determine: compliance with regulatory standards; adulteration with inferior or substitute ingredients;
undeclared or non-permitted preservatives, heavy metals, or color additives; contamination with filth, spoilage, or tetrahydrocannabinol (THC); and the presence of foodborne pathogenic bacteria. Approximately 94% of samples were found to be properly labeled and/or free of contamination or adulteration. A total of 186 recalls were triggered by laboratory test results.

In accordance with the Food Laboratory’s USDA cooperative agreement with respect to the PDP, the laboratory reported results of 1,688 samples, resulting in the generation of 354,480 results for pesticide residues. From those, 135 were violative; either no tolerance existed for the compound in the commodity tested or the amount found exceeded the tolerance. This nationwide program is in its 31st year and has nine participating states, including NYS.

The Food Laboratory also performed analytical testing on samples received from various external sources. These included samples involved in foodborne illness investigations requested by NYS DOH.

In accordance with the National Conference of Interstate Milk Shipments (NCIMS) Split Sample Program, the Food Laboratory prepared 68 proficiency sample sets for the dairy laboratories certified by AGM’s Division of Milk Control and Dairy Services. In addition, 14 states contracted with the Food Laboratory to have 42 proficiency sample sets prepared and shipped to certified dairy laboratories within their respective states. Additionally, the laboratory also provided 151 sets of antibiotic residue samples to the same laboratories.

<table>
<thead>
<tr>
<th>Source of Sample</th>
<th>Number of Samples Received</th>
<th>Number of Samples Reported (a)</th>
<th>Number of Tests (a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>20,940</td>
<td>20,283</td>
<td>411,059</td>
</tr>
<tr>
<td>PDP Program</td>
<td>1,786</td>
<td>1,688</td>
<td>354,480</td>
</tr>
<tr>
<td>Food Safety Inspection Staff</td>
<td>3,708</td>
<td>3,565</td>
<td></td>
</tr>
<tr>
<td>MCDS Staff</td>
<td>15,089</td>
<td>14,733</td>
<td>56,579</td>
</tr>
<tr>
<td>Plant Industry Staff</td>
<td>161</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Other (c)</td>
<td>21</td>
<td>152</td>
<td></td>
</tr>
</tbody>
</table>

(a) Includes results from samples collected at end of 2020.
(b) Number represents number of testing for division of FSI, MCDS, PI, and others.
(c) Others: other New York State departments, State/Federal agencies, or proficiency testing providers.

<table>
<thead>
<tr>
<th>Number of Samples Received (excluding PDP and Liquor authority)</th>
<th>Number of Tests Performed (excluding PDP and Liquor Authority) (a)</th>
<th>Number of Violations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>19,149</td>
<td>58,929</td>
</tr>
<tr>
<td>Microbiology (b)</td>
<td>14,847</td>
<td>32,282</td>
</tr>
<tr>
<td>Chemistry (c)</td>
<td>4,302</td>
<td>26,647</td>
</tr>
</tbody>
</table>

(a) Includes results from samples collected at end of 2020.
(b) Microbiology testing includes: total aerobic plate counts, total coliforms, Escherichia coli, E. coli O157:H7, Salmonella enterica, Listeria monocytogenes, Campylobacter coli, C. jejuni and C. lari, Staphylococcus aureus enterotoxin, yeasts, molds, presence of antimicrobials in dairy products, verification of pasteurization, and proficiency testing.
(c) Chemistry testing includes: standards of identity and nutritional labeling, adulteration, the presence of undeclared harmful allergens, preservatives and artificial colors, specific chemical hazards such as toxic metals, aflatoxins, antibiotic residues, and the identification of impurities, proficiency testing analysis request, and plant industry related analysis.
## Number of Samples Tested for the Division of Plant Industry

<table>
<thead>
<tr>
<th></th>
<th>Number of Samples Tested</th>
<th>Number of Violations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>143</td>
<td>34</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>63</td>
<td>30</td>
</tr>
<tr>
<td>Lime</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Industrial hemp (THC only)</td>
<td>72</td>
<td>N/A*</td>
</tr>
</tbody>
</table>

*Determination of violation for industrial hemp is at the discretion of the Division of Plant Industry.

### Continued Research

As a leader in food laboratory analytical testing and method development, the Food Laboratory participated in working groups and committees in the Association of Official Analytical Communities International, the International Association of Food Protection, the Association of Public Health Laboratories, the Association of Food and Drug Officials, the American Association of Feed Control Officials, and the American Association of Plant Control Officials.

The Food Laboratory continued to be an active collaborator on determining safe limits of contaminants such as environmental chemicals, heavy metals, and suspected carcinogens. In 2021, the Food Laboratory worked with AGM’s Division of Food Safety and Inspection and the Department of Health’s Bureau of Toxic Substance Assessment in a publication on the Journal of Regulatory Science about determining reasonable limits for inorganic arsenic, cadmium, and lead in spices.

Results of collaborative work among Cornell University, University of Tennessee, and the Food Laboratory were published in the Frontiers in Water journal under the title "Development of an Irrigation Water Quality Database to Identify Water Resources and Assess Microbiological Risks During the Production of Fresh Fruits and Vegetables."

In 2021, the Food Laboratory continued as state technical advisor for the Baby Food Council until monthly calls were canceled. This group included representatives from academia, infant and toddler food companies, and federal and state agency advisors seeking to reduce heavy metals in baby food.
Food Safety and Inspection

Staffing

The Division of Food Safety and Inspection (FSI) has a permanent staff of 135, 98 of whom are field-based positions and the rest assigned to offices in Albany, Buffalo, Rochester, Syracuse, New Windsor, Hauppauge, and Brooklyn.

<table>
<thead>
<tr>
<th>Licenses</th>
<th>Number Issued During 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-c food processing establishments</td>
<td>12,504</td>
</tr>
<tr>
<td>Article 28 retail food stores</td>
<td>2,117</td>
</tr>
<tr>
<td>Article 28 food warehouses</td>
<td>758</td>
</tr>
<tr>
<td>Slaughterhouses</td>
<td>123</td>
</tr>
<tr>
<td>Food salvagers</td>
<td>7</td>
</tr>
<tr>
<td>Refrigerated warehouses</td>
<td>39</td>
</tr>
<tr>
<td>Inedible meal disposal plants and vehicles</td>
<td>1</td>
</tr>
<tr>
<td>Inedible meat transportation service and vehicles</td>
<td>1</td>
</tr>
<tr>
<td>Pet food brands registration</td>
<td>672</td>
</tr>
<tr>
<td>Feed tonnage</td>
<td>514</td>
</tr>
<tr>
<td>Feed facility registrations</td>
<td>779</td>
</tr>
<tr>
<td>Commercial feed licenses</td>
<td>118</td>
</tr>
<tr>
<td>Home processor registrations</td>
<td>2,147</td>
</tr>
</tbody>
</table>

Programs

The division employs a progressive enforcement program to encourage compliance with food safety laws and regulations. Enforcement tools include food seizure, warning letters, civil penalties, education sessions, license revocation, and injunctive actions. The Department pursued 66 license revocation hearings and 59 injunction actions in 2021.

In 2021:

- 415 industry compliance sessions were provided to food establishment operators. These educational sessions are intended to assist food establishments that are struggling to comply with regulatory requirements.
- AGM participated in the Institute for Food Safety at Cornell University’s COVID-19 “Office Hours” throughout 2021, answering questions relating to the pandemic.
- FSI participated in produce safety outreach, including:
  - attendance at multiple Produce Safety Alliance (PSA) trainings;
  - attendance at several On Farm Readiness Reviews (OFRRs), non-regulatory farm visits designed to assist with the interpretation of the produce safety rule;
  - distribution of New York State produce safety rule documentation; and
  - publication of media advertisements regarding the availability of produce safety resources.
Federal Activity

FSI conducts manufactured food inspections for FDA under a contract agreement. It conducted 311 inspections during 2021.

The Manufactured Foods Regulatory Program Standards (MFRPS) is a quality management system intended to create nationwide consistency between State and FDA inspection programs. FDA provides AGM with funding annually to support conformance with standards established by FDA and states.

During a recent audit of FSI’s MFRPS standards, the FDA concluded that the division is in full compliance with no areas of concerns.

The Rapid Response Team program is intended to improve State and federal response to all hazardous food emergencies. FDA provides AGM with funding annually to support staff, training, and program development.

New York State adoption of the Food Safety Modernization Act, Produce Safety Rule, and Preventive Controls for Human Food Rule occurred in the summer of 2017. This enables AGM to complete food and produce safety inspections under the new regulatory regime. In 2021, FSI conducted 311 FDA contract Good Manufacturing Practice (GMP) inspections as well as completed four Preventive Controls inspections under this grant.

The Produce Safety program established an on-farm produce inspection unit within FSI. The Produce Safety Unit conducted 190 produce safety inspections during 2021.

The Farm Products Unit conducted grading, sampling, and auditing programs on behalf of USDA under USDA cooperative agreements.

Inspections and Samples

FSI food inspectors perform inspections at more than 35,000 regulated food establishments on a routine basis. Inspectors performed 30,984 on-site inspections in 2021 and 76.4% of those inspections were found to be in substantial compliance.

Food inspectors collect routine and for-cause food samples at regulated food establishments. Inspectors submitted 3,565 food samples to the Food Laboratory in 2021, with 8% of those samples found to be in violation.

Food inspectors executed over 2,164 food seizures in 2021 (for adulterated or misbranded food items), resulting in over 1,817,756 pounds of food seized.

Inspectors also investigated 1,868 consumer complaints in 2021.

The Farm Products Unit conducted produce grading inspections, inspecting more than 162 million pounds of produce and issuing more than 3,300 certificates in 2021 on behalf of USDA.

A summary of all FSI efforts is listed in the table below.
### Activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food safety inspections</td>
<td>30,984</td>
</tr>
<tr>
<td>FDA contract inspections</td>
<td>311</td>
</tr>
<tr>
<td>Compliance rate (% passing inspections)</td>
<td>76.4%</td>
</tr>
<tr>
<td>Consumer complaint</td>
<td>1,868</td>
</tr>
<tr>
<td>Investigations food seizures</td>
<td>2,164</td>
</tr>
<tr>
<td>Food seized (pounds)</td>
<td>1,817,756</td>
</tr>
<tr>
<td>Food samples</td>
<td>3565</td>
</tr>
<tr>
<td>% of food samples that were violative</td>
<td>8%</td>
</tr>
<tr>
<td>Feed samples</td>
<td>776</td>
</tr>
<tr>
<td>Feed samples that were violative</td>
<td>6%</td>
</tr>
<tr>
<td>Food recalls</td>
<td>286</td>
</tr>
<tr>
<td>Hearings requested</td>
<td>66</td>
</tr>
<tr>
<td>Injunctions requested</td>
<td>59</td>
</tr>
<tr>
<td>Penalties issued</td>
<td>3,723</td>
</tr>
<tr>
<td>Human food licenses processed</td>
<td>15,548</td>
</tr>
<tr>
<td>Animal food licenses/registrations processed</td>
<td>2,109</td>
</tr>
<tr>
<td>Produce safety inspections</td>
<td>190</td>
</tr>
<tr>
<td>Terminal market inspection certificates (pounds graded and revenue generated)</td>
<td>76,601,964</td>
</tr>
<tr>
<td>Shipping point inspection certificates (pounds graded)</td>
<td>57,085,727</td>
</tr>
<tr>
<td>Pesticide date program sampling</td>
<td>1,504</td>
</tr>
<tr>
<td>County of origin labeling audits</td>
<td>184</td>
</tr>
<tr>
<td>Good agricultural practices audits</td>
<td>220</td>
</tr>
<tr>
<td>Poultry voluntary residence grading (number of cases of eggs graded)</td>
<td>179,298</td>
</tr>
<tr>
<td>Poultry grading (number of pounds)</td>
<td>1,368</td>
</tr>
<tr>
<td>Poultry shell egg surveillance (number of cases of eggs inspected quality)</td>
<td>17,261</td>
</tr>
<tr>
<td>Quality control</td>
<td>0</td>
</tr>
<tr>
<td>Shipping point contract inspections</td>
<td>0</td>
</tr>
<tr>
<td>New York State branding law (number of establishments)</td>
<td>257</td>
</tr>
</tbody>
</table>

## Land and Water

### Staffing

The Division of Land and Water Resources has 16 permanent and five temporary staff. Approximately half of the staff are field based, with the remaining staff located in Albany.

### Programs

The division, in partnership with the New York State Soil and Water Conservation Committee (State Committee), administers programs to prevent or reduce water pollution, enhance soil
health, mitigate greenhouse gas emissions from agriculture, and increase agricultural and community resiliency to a changing climate. In 2021, staff assisted 58 Soil and Water Conservation Districts (SWCDs) in a wide array of operations, programs, and project areas. Division field-based staff work closely with SWCD staff and boards to prioritize decisions for the advancement of conservation programming. Staff in the Albany office have primarily focused on providing operational and technical support through the development of training modules, training events, direct research, and thorough administrative support. Monthly reports are provided regionally to communicate program deadlines, funding opportunities, State Committee policies, and significant achievements.

Division staff work with the State Committee to deliver four programs: the NYS Agriculture Non-Point Source Abatement and Control Program (AgNPS) for the implementation of best practices to address on-farm water pollution concerns; the Agricultural Environmental Management (AEM) Program for conservation planning purposes; the Climate Resilient Farming Program to mitigate greenhouse gas emissions and help farms adapt to a changing climate; and the State Aid to Districts Program, designed to help SWCDs increase and maintain capacity to carry out natural resource management programs.

The division also administers programs to maintain viable agricultural lands and farm operations and the production of crops, livestock, and livestock products through its Agricultural District and the Farmland Protection programs. This includes all elements of AML Article 25-AA (Agricultural Districts) and AML Article 25-AAA (Agricultural Protection and Development).

Each agricultural district in the state is reviewed every eight years. As of February 2022, there are 154 agricultural districts, providing benefits to 26,246 farms, totaling 9,162,250 acres. In 2021, 15 agriculture reviews were completed, and 35 counties provided annual inclusions to 64 agricultural districts.

During 2021, the division processed numerous formal and informal responses to requests for review of local laws and ordinances. It conducted 12 formal investigations, provided one agriculture in nature opinion, and responded to several dozen eligibility inquiries. Three landowners declined sound agricultural practice investigations. Additionally, the division processed 120 Notices of Intent and eight waivers to minimize adverse impacts on agriculture from commercial utility projects. The Department continues to see a high volume of notices, exceeding normal annual filings by 150%. This is predominantly due to the siting of commercial solar arrays on agricultural lands within agricultural districts.

Since 2011, the Agricultural and Farmland Protection Program has protected over 57,787 acres of viable agricultural lands from conversion to non-farm uses through perpetual agricultural conservation easements. The cumulative number of acres protected to date totals 97,308.

The division is also a statutory party under Article VII and Article ten of the Public Service Law (PSL), as well as the new Executive Law 94c, for the review and mitigation of agricultural impacts resulting from the construction of major fuel gas pipelines, utility-scale wind electric generating facilities, and utility-scale solar photovoltaic and energy generating facilities. In 2021, there was one active natural gas pipeline project and 13 active high-voltage electric transmission projects, certified under Article VII of the PSL totaling over 791 miles. The 2021 renewable energy projects exceeding 25 mW included 13 utility-scale wind energy generation facilities and 36 photovoltaic solar energy projects. These utility-scale energy generation projects represent more than 8,230.5 mW of renewable energy.
Environmental Protection Fund (EPF) Program Highlights

The division administers 12 unique grant solicitations on an annual or semi-annual basis supported by the EPF. Significant active grants in 2021 include:

- **Farmland Protection Implementation:** In 2021, there were a total of 35 awards to protect 10,530 farmland acres issued in response to the Request for Applications to purchase perpetual agricultural conservation easements. The Request for Applications remains open for additional application submissions. AGM has thus far received 44 applications for financial assistance.
- **Farmland Protection Planning:** Five municipalities were awarded a total of $144,278 in 2021.
- **Agricultural Environmental Management (AEM):** The 2020-2021 (Round 16) AEM Base Funding Program provided $11 million in reimbursement of SWCD technical assistance and financial assistance to farmers. Division staff are currently evaluating program reports for 2021.
- **Climate Resilient Farming Grant Program:** Round five awards were issued in 2021 totaling $4 million. AGM received 47 applications totaling $6 million, exceeding available funding. 16 contracts were completed in 2021.
- **Agriculture Non-Point Source Pollution Prevention (AgNPS):** Round 27 awards were issued in 2021 totaling $13.6 million. AGM received 102 applications totaling $30 million, exceeding available funding. 42 contracts were completed in 2021.
- **State Aid to Districts Program:** $10.5 million was awarded to all 58 SWCDs under the annual State Aid to Districts Program. Funding is distributed through three components: Part A, which reimburses SWCDs for technical services up to $60,000; Part B, which provides conservation project financial assistance up to $6,000; and Part C, which awards funding based on meeting performance measures utilizing the balance of funding. This is among the highest amounts of state aid provided to conservation districts. A SWCD that earned full Part A reimbursement received a $6,000 conservation project, and those that met all performance measures received a total $178,000. The maximum Part C award was $112,000, the highest in history.

Milk Control and Dairy Services

**Staffing**

The Division of Milk Control and Dairy Services (MCDS) has a permanent staff of 55. Most of the staff are field based; 12 are assigned to the Albany headquarters. The field staff conduct public health inspections across the 350 permitted facilities and oversee 86 Certified Milk Inspectors (CMI), who provide direct oversight to New York’s nearly 3,500 dairy farms.

**Licenses**

The division licenses milk plant operators, producer cooperatives, milk distributors, haulers, and brokers. The number of issued and active licenses is as follows:
<table>
<thead>
<tr>
<th>Licenses</th>
<th>Number Issued and Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk Dealers (haulers, brokers, bargaining cooperatives)</td>
<td>126</td>
</tr>
<tr>
<td>Distributors</td>
<td>284</td>
</tr>
<tr>
<td>Plant Operators</td>
<td>103</td>
</tr>
<tr>
<td>Operating Cooperatives</td>
<td>18</td>
</tr>
<tr>
<td>Frozen Dessert Handler</td>
<td>181</td>
</tr>
<tr>
<td>Frozen Dessert Manufacturer</td>
<td>169</td>
</tr>
<tr>
<td>Part 2 Processing Permits</td>
<td>406</td>
</tr>
<tr>
<td>Milk Receivers</td>
<td>4,431</td>
</tr>
<tr>
<td>Bacteria Licenses</td>
<td>1,097</td>
</tr>
<tr>
<td>Processing Plant Superintendents</td>
<td>297</td>
</tr>
<tr>
<td>Certified Milk Inspectors</td>
<td>90</td>
</tr>
<tr>
<td>Equipment Installers</td>
<td>259</td>
</tr>
</tbody>
</table>

**Programs**

The Milk Producer Security Fund (MPSF) provides milk dealers an option to provide required security by joining a shared risk pool. Dealers who join the MPSF are required to pay an assessment based on their monthly purchases of milk. In 2020-2021, this fund secured the milk purchases of about 40 licensed dealers. The fund balance as of February 28, 2022, was $11.9 million.

**Western New York Milk Marketing Order**

The Western New York Milk Marketing Order is responsible for setting the producer prices and value of milk marketed in the western third of NYS that is not otherwise covered by the Federal Milk Market Order. This order was initiated at the request of dairy producers to ensure the orderly marketing of milk in this area by requiring that all producers be paid uniformly for their milk, regardless of the value of the product produced.

**Dairy Promotion Order**

The NYS Dairy Promotion Order collects ten cents per hundredweight of milk produced in NYS from producers to fund marketing and research projects approved by a board of New York dairy producers. The board serves a three-year term, with the current board appointed in June of 2020. This assessment is a one-to-one offset from dairy producers’ 15 cent per hundredweight obligation to the federal milk marketing order. During the last year, more than $15.3 million was collected to fund these marketing and research programs.

**Statistics**

MCDS staff process approximately 4,000 monthly statistical reports annually to tabulate information on the health and activity of New York’s dairy industry. From this information, the division publishes an annual statistical bulletin. These reports are used by the USDA’s National Agricultural Statistics Service to ensure that its own data is complete and accurate. Additionally, this information is used to generate other statistical reports, on demand, as requested by agricultural economists and government decision makers to ensure that economic development, regulatory, and public policies are having their desired outcome. This is the best source of reliable information for the largest segment of the agricultural economy of the state.
Aid-to-Localities

The division does not administer aid-to-localities grants.

Federal/Interstate Activity

The division administers the Pasteurized Milk Ordinance (PMO) through a cooperative agreement with FDA and the National Conference on Interstate Milk Shipments (NCIMS). MCDS staff is continuously engaged in dairy regulatory policy in the United States. NCIMS is the controlling authority for Grade A dairy products, dairy farm regulations, dairy plant regulations, technical dairy processing equipment, and approved processes nationally.

New York participated in several other regulatory discussions with groups, including the Interstate Milk Shippers Program, the Dairy Practices Council, the FDA Atlantic Midwest Dairy Equipment Review Committee, the National Association of Dairy Regulatory Officials, the 3-A Sanitary Dairy Equipment Standards, and the National Mastitis Council. The division’s presence at meetings is vital to ensure the changes proposed meet and address New York’s interests and initiatives.

The impact of dairy on the New York economy makes participation in the NCIMS vitally important to achieving AGM’s mission to strengthen the dairy industry.

Inspections and Samples

Per the PMO, each fluid plant, manufacturing plant, and wholesale frozen dessert plant in New York State must be inspected every 90 days. Staff performed 4,489 on-site inspections in 2021: 3,269 milk plant sanitary and pasteurizer inspections and 1,220 milk receiver inspections and bulk vehicle inspections.

Per the PMO, every milk and dairy product must be sampled every month. MCDS staff submitted 15,504 product samples in 2021. Of those, 12,874 were sampled for regulatory analyses with public health significance and were submitted to the State Food Laboratory for testing.

In addition, every dairy farm in NYS is inspected at least twice a year by a CMI who is certified by AGM. In 2021, CMIs conducted approximately 11,000 dairy farm inspections, reviewing the sanitary conditions of farms, the health of cows, and the health of the farm’s employees. AGM conducted 344 evaluations of CMI proficiency in 2021.

Division laboratory evaluation officers conduct full on-site evaluations once every two years in 91 milk testing laboratories. Each laboratory is also inspected every six months to ensure the accuracy of sample testing.

By regulation, any person who installs equipment on a dairy farm or in a milk plant must register with AGM. They are responsible for technical installations and meeting applicable construction and fabrication requirements of the PMO, as well as dairy material and design requirements, like 3-A Sanitary Standards.
Education and Outreach

The division completed several education and outreach efforts in 2021. These included:

- providing an annual weeklong virtual training for new CMIs with Cornell University and annual outreach to about 86 CMIs;
- presenting two virtual Processing Plant Superintendent seminars to the 350 permitted facilities;
- conducting three office conferences on compliance and enforcement corrective action plans; and
- providing food manufacturer specific guidance over 300 permitted facilities on how to help stop the spread of COVID-19.

In conjunction with Cornell University Department of Food Science and Extension, the division additionally: conducted three hands-on pasteurization training courses; and educated dairy laboratory staff in a virtual seminar covering approximately 91 industry laboratories.

Plant Industry

Staffing

The Division of Plant Industry consists of 48 permanent employees, including office staff and field staff. The division also hires up to 90 seasonal employees to work on survey and eradication programs. The COVID-19 pandemic continued to present many challenges in 2021 for both field and office-based staff in the division. Despite these challenges, survey inspections and regulatory work continued throughout the state. Division staff worked diligently and safely following all COVID-19 precautions and directives. Several division staff provided support to COVID-19 response efforts including testing, outreach and public information, and vaccination clinics.

Plant Licensing and Inspection

As part of the division's mission to prevent and control insects and diseases of plants and trees, New York’s horticultural inspectors conducted more than 3,000 nursery grower and dealer inspections in 2021. Division inspectors also inspected and certified more than 800 domestic and foreign shipments to leave the State. Inspection activities in 2021 are summarized as follows:

<table>
<thead>
<tr>
<th>Inspection Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery Grower Inspections</td>
<td>2,153</td>
</tr>
<tr>
<td>Nursery Dealer Inspections</td>
<td>1,596</td>
</tr>
<tr>
<td>Shipment Inspections (Incoming Domestic)</td>
<td>15</td>
</tr>
<tr>
<td>Shipment Inspections (Incoming Foreign)</td>
<td>3</td>
</tr>
<tr>
<td>Shipment Inspections (Outgoing Domestic)</td>
<td>449</td>
</tr>
<tr>
<td>Shipment Inspections (Outgoing Foreign)</td>
<td>389</td>
</tr>
</tbody>
</table>
Plant Regulatory and Quarantine Programs

Industrial Hemp Agricultural Research Pilot Program

The 2021 growing season was the last season for the NYS Industrial Hemp Research Pilot Program. As required by federal law, the Pilot Program expired on December 31, 2021. In October, the Department submitted a Hemp Program Plan (Plan) for approval by the USDA. The Plan, which was approved by the USDA on November 19, 2021, establishes the parameters under which AGM will administer a licensing program for hemp growers and seed sellers in 2021 and beyond. In conjunction with submitting the program plan, AGM also adopted hemp program regulations (1 NYCRR Part 159). Additionally, AGM added three full-time employees to administer the hemp program.

As in 2020, 2021 was challenging for hemp growers for a variety of reasons, including COVID-19, weather, and a glut of hemp biomass that kept prices low. Despite the challenges facing the hemp industry, and the fact that the Pilot Program was expiring on December 31, 2021, AGM continued to receive applications to grow hemp until the end of the year.

The division’s horticultural inspectors continued to inspect and sample registered hemp growing operations within the state during 2021.

Table 1: Growth by Year

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>New growers</td>
<td>2</td>
<td>54</td>
<td>59</td>
<td>373</td>
<td>216</td>
<td>58</td>
<td>762</td>
</tr>
<tr>
<td>registered</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Inspections and Samples Collected

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspections performed</td>
<td>1,033</td>
<td>474</td>
</tr>
<tr>
<td>Samples collected</td>
<td>55</td>
<td>73</td>
</tr>
</tbody>
</table>

Box Tree Moth

The Division of Plant Industry conducted a survey for the invasive pest *Cydalima perspectalis*, or Box Tree Moth (BTM), at high-risk nurseries that received shipments of boxwood (*Buxus sp.*) from a Canadian nursery where a known infestation of BTM exists. Traps and visual surveys were conducted at nurseries located in the central, northern, and western regions of New York State to monitor for the presence of this invasive pest.

An adult BTM was detected in a trap catch in July 2021 in Niagara County, followed by detections of larvae and pupae during visual surveys. Identifications of all life cycles for BTM were conducted by the Insect Diagnostic Lab, Department of Entomology, Cornell University, Ithaca, New York and confirmed by USDA National Identification Service. In total, 799 BTM in various life stages were trapped or noted by visual survey. All detections were in Niagara County. Visual surveys for BTM were conducted at 129 nursery growers and dealers across New York State. In total, 72,496 plants were inspected and found to be negative for any signs of BTM. Trapping and visual survey efforts concluded at the beginning of November 2021.
**European Cherry Fruit Fly**

*Rhagoletis cerasi*, or European Cherry Fruit Fly (ECFF), is a pest of sweet and tart cherries of the *Prunus* species. ECFF also feeds on *Lonicera*, commonly known as honeysuckle, and other plants. This insect is native to Europe and parts of Asia. It was first discovered in New York State in 2017.

In 2021, the quarantine area for European Cherry Fruit Fly was expanded beyond Niagara, Erie, and Orleans Counties to include all of Monroe and Wayne Counties.

European Cherry Fruit Fly trapping was conducted in five counties by AGM Division of Plant Industry personnel. A total of 474 traps were placed, with 2,578 servicing conducted.

**Asian Longhorned Beetle Eradication**

The Asian Longhorned beetle (ALB) is a dangerous pest of hardwood trees. Native to China, Japan, and Korea, the insect likely was transported into North America in solid wood packing materials used for international shipping. The first North American infestation was discovered in Brooklyn in 1996, and infestations have subsequently been found in New Jersey, Illinois, Massachusetts, Ohio, Long Island, New York, and Ontario, Canada. In these areas, tens of thousands of trees have been cut down to prevent the spread of ALB.

Through a cooperative effort, and with the help of program contractors, the NYS ALB program has declared eradication in several areas over the years including Brooklyn, western Queens, eastern Queens, Manhattan, Staten Island, and Islip. The only quarantine remaining in New York is in Central Long Island.

Although 20 infested trees were discovered by our survey crews this past year, all were in the core area and did not alter survey or quarantine boundaries.

**Regulatory Activities**

The total area under regulation for ALB is 53 square miles. The Central Long Island area includes the towns of Amityville, Massapequa, Massapequa Park, Farmingdale, Melville, Copiague, Lindenhurst, West Babylon, Babylon, Wyandanch, and Wheatley Heights. The NYC boroughs of Brooklyn and Queens (Kings and Queens Counties) were deregulated on January 22, 2020, reducing the total regulated area by 58 square miles.

- To effectively manage and control the movement of wood and ensure proper disposal and destruction of host material, the program spends numerous hours training and educating green industry professionals. Once trained, the companies are issued a compliance agreement where they inspect host wood for infestation and properly dispose of it in an approved manner.
- 538 general compliance agreements and six nursery/garden center agreements were being monitored in 2021.
- 1,137 site inspections were made along with 293 vehicle inspections. Seven regulated material certificates were issued for firewood inspections. Four quarantine orders and two limited permits were issued to authorize controlled movement of regulated materials.
- The ALB program continues to place high priority on outreach, education, and training to bring awareness and understanding of this destructive pest to the public's
attention. Two on-site compliance trainings were provided, and eight compliance training workshops were conducted. Training was provided to 54 individuals and 11 companies/organizations.

Golden Nematode Quarantine and Management Program

The Golden Nematode (GN) is a destructive potato pest which threatens New York State’s potato industry and other soil-bearing crops. It is extremely difficult to eradicate GN since it is undetectable at low levels and can persist in the soil for up to 30 years. New York is the only state in the United States that has a confirmed population of this pest. Since the 1940s, NYS has maintained an effective and comprehensive control program to minimize GN’s spread to other areas and to protect the export of New York potatoes, nursery stock, and other agricultural commodities. Maintaining an effective GN program has facilitated both international and interstate agricultural trade as other countries and states strive to protect their territories from any consequences of exposure to GN. GN program activities have successfully kept GN controlled within NYS and prevented the spread to other areas. Program activities in 2021 included:

- AGM sanitized farm and construction equipment (351 power washed, and 175 steam heat treated) to prevent the spread of GN through the movement of soil.
- AGM collected leaf samples for DNA analysis to confirm that the Resistant Variety Crop Rotation was adhered to. Sampling took place on 31 fields. All fields were in compliance.
- Since 2010, AGM, in cooperation with the USDA, continues to make progress toward the goal to de-regulate 90% of the currently regulated acreage. To date over 1,186,639 acres have been removed from the GN quarantine with 101,995 acres remaining. Work is continuing to reduce this regulated acreage further.
- AGM issued compliance agreements to ensure other agencies or businesses are aware of and follow any GN restrictions. In 2021, 34 compliance agreements were issued.

Systematic soil surveys are conducted in potato-producing areas of New York to determine if new introductions of GN are present and to confirm that currently regulated fields remain without detectable levels of GN cysts. In 2021, soil samples were taken in seed potato production fields, at potato grader stations, in fields considered for deregulation, and fields known to be infested or exposed to infestation. In seven New York counties, a total of 3,373 samples from 55 fields comprised of 756.7 acres were sampled with eight fields found to contain GN cysts. The eight samples are currently undergoing testing to determine if the cysts are viable. All other fields were found to be negative for signs of Golden Nematode.

Plum Pox Virus Quarantine and Eradication Program

The division, in cooperation with the USDA and Cornell University, used a multi-tiered approach of survey, control, and education to eradicate Plum Pox Virus (PPV) from NYS. AGM Division of Plant Industry personnel planned, coordinated, and conducted the survey for the commercial stone fruit orchards. No plum pox virus positive trees were found in the 2021 survey.

The quarantine area of Ulster, Orange, and Dutchess Counties was repealed. As part of the eradication survey, program staff surveyed 489 commercial stone fruit blocks in three counties for a total of 17,615 leaf samples collected. All samples tested negative using Enzyme-Linked Immunosorbent Assay (ELISA) by the PPV National Plant Protection Laboratory Accreditation Program’s (NPPLAP) Certified Laboratory under the direction of Dr. Marc Fuchs, Cornell University Agriculture Experiment Station.
The Plum Pox Virus Eradication program reached the goal of eradication within the six-year timeline for the counties of Ulster, Orange, and Dutchess. This could not have been achieved without the cooperation of growers, landowners, and the nursery industry.

**Spotted Lanternfly Control Program**

Spotted Lanternfly (SLF, *Lycorma delicatula*), is a planthopper native to China, India, and Vietnam. SLF is known to utilize more than 70 plant species, including cultivated grapes, apples, stone fruits, other fruit trees, the invasive tree of heaven, and many species of hardwood trees. SLF is expected to have a negative impact on agriculture, forest product, and recreation industries in areas of infestations. SLF was first detected in the United States in Berks County, Pennsylvania in 2014, and established populations have since been confirmed in 11 states. Strategies for monitoring and control of SLF are continuing to be developed, as this pest has been established as an invasive species in the United States for fewer than five years, and its biology is still not fully understood.

A total of 298 traps were deployed to monitor for presence of SLF in high-risk areas of New York State. Trapping results, visual inspections, and response to public reports verified SLF presence in select areas. In 2021, Spotted Lanternfly infestations were confirmed in Suffolk County, Tompkins County, Orange County, Rockland County, and Broome County, in addition to the 2020 infestations in Richmond County (Staten Island), Kings County (Brooklyn), Queens County, and New York County (Manhattan). Thorough inspections were slowed by high COVID-19 infection rates in parts of the state, but substantial progress was made. In 2021, 2,917 properties, representing 49,308 acres, were inspected for SLF. Trapping, egg-mass scraping, and pesticide treatments were performed in Orangeburg, Port Jervis, and Newburgh. Suspect trees were removed in Ithaca and followed up with a pesticide treatment. Reports from throughout the state continue to be investigated to detect any additional populations.

The SLF Response Team previously established an external quarantine in September 2018 to help prevent the transport of SLF into New York from areas where it is established. The quarantine regulates various articles that originate from quarantined areas or have traveled through quarantined areas, including living spotted lanternfly; tree and plant materials; yard and landscaping waste; remodeling and construction waste; firewood; packing materials; and outdoor household items such as lawn mowers, grills, patio furniture, and stone. Inspections of incoming regulated articles continued throughout the year to ensure compliance with the quarantine.

**Oak Wilt**

Oak wilt is a disease of oak trees that is caused by a fungus that develops in the tree’s xylem. All oaks are susceptible to the fungus.

Oak wilt has been found in four locations in Glenville, Schenectady County. Oak wilt was first confirmed here in 2008. In response to that confirmation the Department of Environmental Conservation undertook tree removals and treated several prominent landscape trees that were asymptomatic at the time. In 2013, the area was surveyed again and the trees that had been treated in 2008 were confirmed positive for oak wilt. In 2016, oak wilt was discovered in Islip, Riverhead, and Southold in Suffolk County; Kings County; and Canandaigua in Ontario County. In 2018 and 2019, oak wilt was found in South Bristol in Ontario County and Middlesex in Yates County.

In response to current detections, the NYS Department of Environmental Conservation (DEC)
DEC is currently conducting visual surveys, collecting leaf samples of symptomatic material for diagnosis, and removing infected trees to control the spread of the pathogen within each protective zone. DEC had a detection in October 2021, just over the border into the town of Italy (south of Middlesex). They treated two trees in December and are planning to expand the Middlesex protective zone. AGM authorizes the movement of oak nursery stock out of a protective zone under compliance agreements and limited permits issued by a horticultural inspector from the Division of Plant Industry. In 2021, the Division issued 32 compliance agreements and limited permits in Suffolk County to establishments shipping oak nursery stock out of the Suffolk County protective zone. In addition, horticultural inspectors completed inspections of sales records and field surveys of oak nursery stock during summer 2021.

**Beech Leaf Disease Survey**

In 2021, New York received reports of beech leaf disease in several neighboring states; a survey of beech nursery stock was conducted at nursery growers and dealers across NYS. Twenty-five horticultural inspectors completed visual surveys of beech nursery stock for symptoms of beech leaf disease. In total 3,200 host trees were surveyed at 89 sites with no positive detections of the pathogen found. AGM Division of Plant Industry staff, along with DEC Division of Land and Forests staff, surveyed for the presence of the beech leaf disease on public lands across the state. In 2021, ten New York counties were confirmed positive for the presence of beech leaf disease from suspect samples confirmed by the official identifier at Cornell University’s Plant Disease Diagnostic Clinic.

**Aid-to-Localities**

The division administered several research contracts with Cornell University and grower organizations based in NYS. These contracts often focus on new and improved methods for managing pests and diseases that pose a threat to economically important agricultural commodities produced within NYS.

**Federal/Interstate Activity**

The division managed 18 cooperative agreements awarded by the USDA. These included both plant-pest surveys as well as control activities, such as pest containment or eradication.

Division staff participate in several committees of the Eastern and National Plant Boards. Participation in these organizations and programs helps AGM regulate businesses in efficient, effective, and innovative ways. Participation in regional and national projects also strengthens the working relationship with regulatory authorities in other states and with our federal partners, including the USDA Animal and Plant Health Inspection Service Plant Protection and Quarantine program, and the United State Forest Service.

**Commodity Inspection, Sampling, and Analysis**

**NYS Seed Testing Laboratory**

The New York State Seed Testing Laboratory (NYSSTL) received 833 service samples consisting of 185 species, of which 832 samples were completed. Samples were submitted from 76 New
York growers, and one grower each in Connecticut and Vermont. Service sample testing consisted of:

<table>
<thead>
<tr>
<th>Crop Category</th>
<th>Number of Tests 2018</th>
<th>Number of Tests 2019</th>
<th>Number of Tests 2020</th>
<th>Number of Tests 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>49.60%</td>
<td>36.75%</td>
<td>37.40%</td>
<td>38.54%</td>
</tr>
<tr>
<td>Flower</td>
<td>2.99%</td>
<td>13.09%</td>
<td>21.55%</td>
<td>25.07%</td>
</tr>
<tr>
<td>Lawn</td>
<td>7.37%</td>
<td>12.15%</td>
<td>1.90%</td>
<td>4.87%</td>
</tr>
<tr>
<td>Range/Restoration</td>
<td>1.79%</td>
<td>2.05%</td>
<td>0.32%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Tree</td>
<td>0.00%</td>
<td>0.63%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Vegetable</td>
<td>38.25%</td>
<td>35.33%</td>
<td>38.83%</td>
<td>31.52%</td>
</tr>
</tbody>
</table>

The table below shows service samples by crop category.

<table>
<thead>
<tr>
<th>Crop Category</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>49.60%</td>
<td>36.75%</td>
<td>37.40%</td>
<td>38.54%</td>
<td>29.53%</td>
</tr>
<tr>
<td>Flower</td>
<td>2.99%</td>
<td>13.09%</td>
<td>21.55%</td>
<td>25.07%</td>
<td>22.69%</td>
</tr>
<tr>
<td>Lawn</td>
<td>7.37%</td>
<td>12.15%</td>
<td>1.90%</td>
<td>4.87%</td>
<td>6.84%</td>
</tr>
<tr>
<td>Range/Restoration</td>
<td>1.79%</td>
<td>2.05%</td>
<td>0.32%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Tree</td>
<td>0.00%</td>
<td>0.63%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Vegetable</td>
<td>38.25%</td>
<td>35.33%</td>
<td>38.83%</td>
<td>31.52%</td>
<td>40.94%</td>
</tr>
</tbody>
</table>

NYSSTL received 207 regulatory samples for testing, of which 206 were completed. Nine samples were received and forwarded to the USDA Federal Seed Laboratory in Gastonia, North Carolina for Trueness-to-Variety testing.

Seed Inspection, Sampling, and Certification (A&M Law, Article 9)

Agriculture and Markets Law provides for the inspection, sampling and analysis of seed that is offered or exposed for sale in New York. The division works closely with Cornell University’s New York Seed Improvement Project to certify seed as New York State Certified. The designation of seed as certified indicates that it is of a known variety produced under strict standards to maintain varietal purity.

In 2021, 207 seed samples were taken and analyzed. 72% of the samples were found to be accurately labeled. Approximately 37 seed labelers were sampled. There were 372 seed inspections performed.
Fertilizer, Lime, and Soil and Plant Inoculants (Article 10, 9A, 10A)

In 2021, 72 commercial fertilizer samples were obtained for analysis and comparison to their labeled guarantees. Of the fertilizer products sampled, 50 percent were found to be compliant to their stated guarantees. In addition, 14 agricultural liming materials were also sampled for analysis.

<table>
<thead>
<tr>
<th>Seed</th>
<th>Turf/Lawn</th>
<th>Flower</th>
<th>Agriculture</th>
<th>Vegetable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samples Analyzed</td>
<td>41</td>
<td>2</td>
<td>152</td>
<td>12</td>
</tr>
<tr>
<td>Samples in Compliance with Labeling</td>
<td>31</td>
<td>0</td>
<td>109</td>
<td>8</td>
</tr>
<tr>
<td>Samples with Violations</td>
<td>10</td>
<td>2</td>
<td>42</td>
<td>4</td>
</tr>
<tr>
<td>Void Sample</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Ammonium Nitrate Inspection

In 2021, there were 11 establishments registered as ammonium nitrate retailers. Ammonium nitrate retailers in state are subject to quarterly inspections by NYS horticultural inspectors. An annual inspection is done in conjunction with the NYS Department of Homeland Security and the NYS Police Counterterrorism Unit. All facilities in the state were inspected and found to be following the regulations.

Stop Sale Orders

AGM issued 83 Stop Sale Orders on products/distributors at 36 facilities.

Unsolicited Seed

In July 2020, consumers around the United States began receiving unsolicited packages of seed through several e-commerce platforms. Reports of consumers receiving seeds continued through the fall months. Subsequent investigations by USDA indicated that these seeds were part of a “brushing” scam which is intended to increase the number of positive reviews an online seller reports to their customers. These seeds were shipped in violation of the federal seed act and NYS seed laws and regulations.

Analysis showed that some of the seeds could be considered noxious weeds or invasive species. Seeds are also capable of transmitting pathogens that can cause plant disease. Consumers were particularly sensitive to these packages as many of them originated in Asia where the COVID-19 pandemic began.

The receipt of unsolicited seed is still being intermittently reported. AGM responded to 27 reports of unsolicited seed in 2021. This is nearly a 98% decrease from the prior year.
Invasive Species and Noxious Weeds

Regulated Invasive Species

During 2021, there were 3,749 total grower and dealer inspections conducted by the division. Of this total number, 349 had plants regulated as invasive species present. There were 308 prohibited plants detected at eight locations. A total of 44 violations of plants not properly tagged were detected at 34 establishments. The compliance rate for the invasive plant aspect of Part 575 has increased by one percent from the previous two years to 99% of all inspected establishments. This is an indication of the continued excellent cooperation the division has had from its regulated community.

The 44 violations found for regulated plants at were typically for labeling deficiencies that were corrected either during the inspectors’ visits or shortly thereafter. There were just 13 violations issued for prohibited plants from eight separate locations. AGM will follow up with a reminder letter to all establishments found to be in violation of these regulations that have not already been sent such a reminder.

The invasive species coordinator engaged with all eight Partnerships for Invasive Species Management (PRISMs) around the state. This included attending 33 individual PRISM meetings and events, most of which were done in a virtual environment. Also attended were ten joint conference calls of all the PRISMs or PRISM leaders. AGM was represented at all four quarterly ISAC meetings which were all held virtually and represented virtually at the two ISC meetings held this year.

Cooperative Agricultural Pest Survey

The 2021 Cooperative Agricultural Pest Survey (CAPS) program looked for ten invasive targets (three state targets and seven federal invasive targets on the federal priority pest list). A total of six visual targets were surveyed by 24 horticultural inspectors across the state. The state visual targets were Boxwood Blight and late blight on tomato. The federal visual targets were cucurbit beetle, groundnut bud necrosis, and southern bacterial wilt.

Visual surveys were completed by horticultural inspectors at nursery and greenhouse sites. Surveys inspect for pests and diseases on multiple host plants. Over 2,000 sites and just over 7.8 million host plants across the state were surveyed. There were six specimens collected for determination resulting in detections of Boxwood Blight confirmed by the official identifier located at the Plant Disease Diagnostic Clinic, Cornell University, Ithaca, New York.

In addition, four other target species were surveyed: Asian gypsy moth, large pine weevil, pine processionary moth, and six-toothed bark beetle. A total of 136 traps were deployed at 68 sites across the state. Horticultural inspectors submitted 11,279 specimens for determination. There were no positive target identifications made by the official identifier Insect Diagnostic Laboratory in the Department of Entomology at Cornell University.

All 2021 results were entered into the National Agricultural Pest Information System program. Federal and state visual targets from the highest predicted impact pest lists were used to evaluate a targeted survey of various plant commodity groups for 2021.
Apiary Inspection and Honeybee Health

The primary purpose of the Apiary Inspection Program is to prevent the introduction, spread, and dissemination of all contagious or infectious diseases or parasites into New York’s managed honeybee population.

The 2021 apiary inspection season began in April and ran through November with three apiary inspectors covering all counties within NYS. These inspectors:

- visited 591 apiary yards and inspected 10,577 colonies;
- issued 87 certificates for the sale of 4,362 nucleus colonies, 24,235 queens, and 65 full-sized colonies produced in New York;
- identified and abated 42 colonies infected with American Foul Brood in ten beekeeping operations;
- issued 72 interstate certificates for movement of 49,271 colonies and 7,300 nucs to leave New York;
- participated for the second year in the multi-state, non-native wasp survey by trapping for invasive wasps in three locations within New York;
- supported the Cornell University Beekeeper Tech Team in its work to teach best management practices (BMPs) to New York beekeepers;
- assisted with 570 inquiries regarding potential sightings of the Asian giant hornet, of which none were positive; and
- participated in the quarterly New England Lunch and Learn webinar series with four other New England states, bringing an educational series to New York’s beekeepers.

New York was one of 41 states that participated in the National Honeybee Survey. Nineteen beekeepers were inspected and sampled in this survey.

The goals of the National Honeybee Survey are to identify potentially invasive pests, develop a baseline of colony health within the United States, and identify risk factors and protective factors that predict colony health and operational success over time. AGM inspectors collected bees and bee bread from eight colonies in each yard. The samples were analyzed for varroa mite and Nosema sp. levels, ten different viruses, and 204 different pesticides broken out as insecticides, herbicides, fungicides, and varroacides. The returned samples showed a clear correlation between beekeepers who migrated and pollinated multiple crops and increased pesticide and viral loads compared to stationary beekeepers who were not involved in pollination services and had lower levels of pesticides and viruses.

Asian Giant Hornet

Due to a focused public outreach and media campaign to determine if Asian giant hornet (AGH) was present in the United States, AGM responded to 570 reports of possible AGH (Vespa mandarinia) sightings. None of these reports were identified as AGH. This reflects nearly a 50% reduction in reports from the previous year. The vast majority of insects reported were European Hornet (Vespa crabro) and Eastern Cicada Killer Wasp (Sphecius speciosus). The Cornell Insect Diagnostic Laboratory was helpful in determining some of the less common lookalikes.
Weights and Measures

The Division of Weights and Measures is responsible for assuring measurement accuracy and uniformity in commerce throughout NYS in accordance with Article 16 of the Agriculture and Markets Law. The division works in cooperation with municipal offices of weights and measures throughout the state to assure accuracy in all commercial transactions based on weight or measure, and the quality of petroleum products offered for sale. These activities assure equity so that consumers in NYS get what they pay for and businesses enjoy a marketplace based on fair competition.

Staffing

The division had 22 permanent staff in 2021, including 11 weights and measures field specialists, three laboratory metrologists, three supervisors, a division director, an assistant director, and support staff.

Programs

Special Details

The division tests and certifies large-capacity vehicle scales, terminal rack meters, and liquefied petroleum gas truck meters on a fee basis. The division limits its device-testing to those devices that are generally not tested by municipalities because they cannot justify the cost of the special equipment, training, or facilities.

<table>
<thead>
<tr>
<th>2021</th>
<th># Tested</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large-Capacity Vehicle Scales</td>
<td>43</td>
<td>$8,600</td>
</tr>
<tr>
<td>Airport Refuelers</td>
<td>33</td>
<td>$3,300</td>
</tr>
<tr>
<td>Liquified Petroleum Gas Truck Meters</td>
<td>1,082</td>
<td>$108,200</td>
</tr>
<tr>
<td>Total</td>
<td>1,158</td>
<td>$120,100</td>
</tr>
</tbody>
</table>

Police Axle-Weigh Scales

The division maintains a testing facility at its western New York regional office for testing axle-weigh scales used by various police departments throughout the state to enforce roadway weight limits. In 2021, the division tested 1070 scale pairs and 18 deck scales from 52 different police agencies, for a total revenue of $55,300.

Metrology Laboratory

The division provides measurement services through its Metrology Laboratory, accredited by the National Institute of Standards and Technology (NIST) and the National Voluntary Laboratory Accreditation Program. The laboratory provides high accuracy calibration services that are traceable to national standards in the areas of mass, length, volume, and time.
<table>
<thead>
<tr>
<th>Customer</th>
<th># of Tests¹</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal W&amp;Ms</td>
<td>300</td>
<td>$25,497</td>
</tr>
<tr>
<td>Other Government</td>
<td>79</td>
<td>$11,770</td>
</tr>
<tr>
<td>Private Industry</td>
<td>631</td>
<td>$58,352</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$95,619</strong></td>
</tr>
</tbody>
</table>

¹ All tests combined equal 6,005 pieces calibrated.

**Type Evaluation**

The division maintains one of five national laboratories in the United States that evaluate new weighing and/or measuring devices to determine if they are “Legal for Trade.”

<table>
<thead>
<tr>
<th>Type of Evaluation</th>
<th>Number of Evaluations</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>By the NYS Lab</td>
<td>19</td>
<td>$25,458</td>
</tr>
<tr>
<td>By Other Labs</td>
<td>41</td>
<td>$4,100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$29,558</strong></td>
</tr>
</tbody>
</table>

**Petroleum Quality**

The division administers the Petroleum Quality Program to assure the quality of petroleum products dispensed in the state. Regulated products are sampled at both the retail and terminal levels. Municipal officials collect the samples at the retail stations and AGM specialists collect samples at wholesale terminals.

<table>
<thead>
<tr>
<th>Product</th>
<th>Samples Taken</th>
<th>Number of Failures¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>11,356</td>
<td>215 (1.9%)</td>
</tr>
<tr>
<td>Diesel</td>
<td>1,554</td>
<td>51 (3.3%)</td>
</tr>
</tbody>
</table>

¹ Does not include summer RVP failures which are enforced by DEC.

**Weighmaster Licenses**

The weighmaster license program is intended to provide a higher level of accountability in bulk transactions where the buyer is typically not present. By law, these transactions include bulk sales of coal, coke, feed for domestic animals, fertilizer, lime, and household goods (e.g. when hiring a moving company), but are also common in contract bulk sales. The division issued 2,987 weighmaster licenses in 2020 for total revenue of $44,805.

**Fuel-NY**

To prepare for future emergencies and severe weather events, certain critical gas stations in the downstate area are required to have both a transfer switch and a plan for back-up power, such as a generator. The New York State Energy Research and Development Authority (NYSERDA) is no longer operating its portable emergency generator plan and the numbers of retail gas stations in full compliance had dropped dramatically. With outreach and site visits conducted by the Department, the number of gas stations in full compliance is increasing again. As of December
2021, 383 downstate retail gas stations were ready to deploy generators in the event of an energy emergency.

**Milk Tank Poundage Charts**

Municipal weights and measures offices test bulk milk tanks on farms and send the data to the division’s central office. The test data is used to create a tank poundage chart that is used by both the farmer and processor to determine the amount of milk sold. In 2021, the division issued 162 bulk milk tank poundage charts.

**Federal/Interstate Activity**

- **NYS DEC:**
  - On October 14, 2021, the division supplied DEC with the 2020 annual report of petroleum quality analysis relating to the Clean Air Act.

- **National Type Evaluation Program (NTEP):**
  - The division receives training and participates at meetings with NTEP, which evaluates commercial weighing and/or measuring devices for legal for trade status. This includes cooperation with a United States/Canada mutual recognition agreement for certain types of devices.

- **NYS Energy Research and Development Authority (NYSERDA):**
  - In 2021, the Fuel-NY program suffered a setback as NYSERDA ended their Portable Emergency Generator (PEG) program. Numbers are increasing again and as of December 2021, 383 downstate retail gas stations were ready to deploy.

- **National Conference on Weights and Measures:**
  - The division made multiple proposals to revise national standards for commercial weighing devices, including a proposal to modify Transportation Network System codes.

- **American Society for Testing and Materials (ASTM):**
  - The division continued its involvement with ASTM as a member of the committee on “Petroleum Products, Liquid Fuels and Lubricants” and “Laboratory Weights and Precision Mass Standards.”

- **Electric Vehicle Charging Stations:**
  - The division participates on State workgroups with DEC and the NYS Department of Public Service. It also participates on a national workgroup with NIST, which is working on a national standard for these devices.

**Local Government**

The division supervises the 60 municipal weights and measures programs to promote uniform enforcement of the provisions of Article 16 and exercises concurrent authority with them. The division evaluates each municipal program on an ongoing basis, provides feedback and assistance to municipal programs, and provides training to municipal officials. In 2020, the division provided 1,781 hours of training to 121 inspectors from 55 municipalities.
**Certifications**

The division maintains three certifications:

- Certificate of Traceability to NIST;
- Certificate of Accreditation in accordance with ISO/IEC 17025 from the National Voluntary Laboratory Accreditation Program (NVLAP); and
- National Type Evaluation Program (NTEP) certification from the National Conference on Weights and Measures (NCWM).

**The Great New York State Fair**

The annual Great NYS Fair, traditionally held for 13 days ending on Labor Day, preserves and enhances the agricultural legacy of the State of New York and promotes current and future agricultural awareness. For the first time since the Fairgrounds was used as a training camp during World War II, the State Fair and its year-round events were canceled in 2020 due to the COVID-19 pandemic.

The Fairgrounds played a critical role in the COVID-19 response. The Fairgrounds was used by SUNY Upstate to conduct drive-through COVID-19 testing and the Exposition Center was used to host one of the largest mass vaccination clinics in the United States. The Art and Home Center hosted blood drives for the Red Cross multiple days a week for several months. The Fairgrounds also provided warehouse space for COVID-19 relief effort supplies, such as hand sanitizer, coolers, soap, plywood, and personal protective equipment.

In addition, the Fairgrounds provided space for large-scale, drive through Nourish New York food distribution events, allowing the Food Bank of Central New York to deliver nutritious, local dairy products, vegetables, fruits, and more to upwards of 1,000 households during each distribution event.

Announced in May of 2021, the State Fair resumed following the COVID-19 pandemic and, over eighteen days, had an attendance of approximately 900,000 people. The 2022 State Fair will be open for thirteen days. It continues to adhere strongly and proudly to its agriculture mission.