

STATE OF NEW YORK DEPARTMENT OF AGRICULTURE AND MARKETS

10B AIRLINE DRIVE ALBANY, NEW YORK 12235

Division of Plant Industry

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Summary of Activities

Plant Inspection and Licensing

The inspection activities conducted by our Horticultural Inspectors may be summarized as follows:

Nursery Grower Inspections	2862
Nursery Dealer Inspections	3175
Active Nursery Growers	2673
Active Nursery Dealers	6002
Shipment Inspections (incoming domestic)	154
Shipment Inspections (incoming foreign	52
Shipment Inspections (outgoing domestic)	388
Shipment Inspections (outgoing foreign)	297
Total Plants Inspected	2,499,939

Plant Regulatory and Quarantine Programs

Velvet Longhorned Beetle

In 2017, The New York State Department of Agriculture and Markets (NYSDAM) deployed ten black intercept panel traps at nine locations in the areas of previous positive VLB finds, mostly suburban residential areas in White Plains, Westchester County. Using a lure developed by the CPHST, twenty-seven positive samples were identified from eight traps. These findings have provided confirmation of the effectiveness of the new lure and that there exists a VLB population larger than originally suspected. As the potential threat of VLB to the urban and

woodland areas of New York is still undetermined, continuation of detection and trapping activities for 2018 is currently being reviewed by NYSDAM and the USDA.

Hemlock Wooly Adelgid

The hemlock wooly adelgid (*Adelges tsugae*) has been an ongoing problem in Northeastern United States for nearly seventy years. In New York State, hemlock wooly adelgid (HWA) has been found on hemlock in forty-one of sixty-two counties, with that number continuing to grow on a yearly basis. NYSDAM continues to monitor for the presence of HWA during annual nursery inspections, verification of new finds and is on a constant lookout for signs of HWA. A state regulation, NYCRR Part 575 - Prohibited and Regulated Invasive Species Express Terms, was introduced in 2015 to "establish procedures to identify and classify invasive species" as part of a management plan for controlling the spread. When HWA is found in the nursery trade on Hemlocks NYSDAM has the authority to issue a quarantine order for destruction once verification is confirmed. If HWA is found on existing Hemlock plantings a recommendation is given to seek professional help in controlling HWA to prevent the further spread of infestation; Part 575 is not a state eradication plan.

In April of 2017, a request was received from a concerned individual to investigate a shipment of hemlock he received from a Tennessee grown source with suspected HWA present. A Horticultural Inspector promptly responded to the request and found a shipment of hemlock seedlings (1000) exhibiting signs of HWA. Hemlock plants were placed under a quarantine order, two samples were verified positive for HWA and the hemlock plants were promptly destroyed. As a follow up, the nursery wholesaler in Tennessee provided documentation for additional sales of bare root hemlock to New York in the past six months. State Horticultural Inspectors conducted twenty-three homeowner inspections across the state of additional hemlock shipments from Tennessee nursery in question and found one positive, which homeowner choose to destroy promptly. The complete process was acted on promptly with all parties involved and all parties involved did their part to remove/reduce the threat of a problematic invasive species.

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, NY in 1996, and infestations have subsequently been found in Long Island, New Jersey, Illinois, Massachusetts, Ohio, and Ontario, Canada. In these areas, tens of thousands of trees have been cut down to prevent the spread of ALB.

Highlights

On May 17th, 2017, through a cooperative effort, Asian Longhorned Beetle (ALB) was declared eradicated from the Eastern Queens portion of the New York City quarantined area. Using a

multi-faceted approach of survey, treatment, and control, program staff contained the spread of this destructive pest and effectively eliminated it. This area follows eradication success in Manhattan, Staten Island and Islip, Long Island. The New York ALB Program continues to move towards total eradication of Asian Longhorned Beetle from New York. Two areas remain; Brooklyn/ Western Queens and Central Long Island. The Eastern Queens deregulation removes 26 square miles from the NYC ALB quarantine.

Delimiting Survey and Detection Response

- As an ongoing response to detection of Asian Longhorned Beetle in New York, the areas
 under quarantine are surveyed. All properties must be accessed within the quarantine
 area and any host trees inspected to complete a cycle. The survey protocols require that
 three negative cycles must occur before an area can be considered free from
 infestation. In 2017, both ground and climbing staff visited a total of 80,508 properties
 and inspected 117,120 trees.
- Quality Assurance To remain vigilant that all survey of properties and trees is accurate,
 QA is conducted on a random percentage of properties and trees. In 2017, a total of
 12,122 properties had a QA check performed.
- Level 3 Survey To ensure no other areas of New York are harboring infestation, inspectors work outside the quarantine boundaries on a regular basis to target and inspect businesses and areas considered at high risk for infestation. The inspectors visited campgrounds, importers, freight rail lines, pallet companies and industrial parks. Inspectors also conducted biometric survey which include survey of random points in pre-determined grids. They accessed 56 establishments and completed 31 biometric grids. In all, 2,895 host trees were surveyed with no new introductions detected.

Tree Removal and Detection

43 infested trees were found in 2017 and 56 trees were identified as high risk. All the
infested and high-risk trees were removed. Since the first detection of ALB in
Greenpoint, Brooklyn, a total of 7,126 infested and 16,711 high risk trees have been
removed.

Regulatory Activities

- The total area under regulation for ALB is 111 square miles. This includes 58 square miles regulated in the NYC area and 53 square miles in the Central Long Island area.
- To effectively manage and control the movement of wood and insure proper disposal and destruction of host material, the program spends numerous hours training and educating green industry professionals. Once trained and willing to cooperate with the regulations, the companies are issued a compliance agreement where they will inspect all host wood for infestation, and properly dispose of it in an approved manner.

- 31 training workshops held in 2017 with 577 individuals from 30 companies receiving training.
- 938 General Compliance Agreements and 18 Nursery/Garden Center Agreements currently being monitored.
- 1,943 site inspections were made along with 317 vehicle inspections. 20 Regulated Material Certificates were issued for firewood inspections. 5 Quarantine Orders and 2 Limited Permits were issued to permit controlled movement.



Golden Nematode Quarantine and Management Program

The Golden Nematode (GN) is a destructive potato pest which poses a serious threat to the State's potato industry and other soil bearing crops attributable to its global status as a pest of regulatory significance. It is extremely small and because of its biology, the nematode is difficult to eradicate. New York is the only state in the U.S. which has a certifiable incidence of this pest. Since the 1940's New York State has maintained an effective and comprehensive control program to minimize the spread of Golden Nematode to other areas and to protect the export of New York potatoes, nursery stock, and other agricultural commodities which come in contact with soil.

Regulatory Activities

• Sanitized farm and construction equipment (1,718 power washed and 46 steam heat treated) to prevent the spread of GN through the movement of soil.

- Collected leaf samples for DNA analysis to confirm that the Resistant Variety Crop Rotation was adhered to.
- Issued five violations to growers who failed to follow the required crop rotation.

Deregulation Activities

Since 2010 NYSDAM in cooperation with the USDA continues to make progress toward the goal to de-regulate 90% of the currently regulated acreage.

At the close of 2017, New York State staff had completed all work required to reduce the GN quarantine in five counties by 193,782 acres. The quarantine reduction is expected to be in place by early 2018.

To date over 1,100,673 acres have been removed from the GN quarantine with 147,500 acres remaining with work continuing to reduce this regulated acreage further.

Soil Survey

Systematic soil surveys are conducted in potato producing areas of New York State to determine if new introductions of GN are present and to confirm that currently regulated fields remain without detectable levels of GN cysts. In 2017, soil samples were taken in seed potato productions fields, at potato grader stations, in fields considered for deregulation and fields know to be infested or exposed to infestation.

In twelve New York counties, a total of 4,040 samples from 132 fields comprised of 919.21 acres were sampled and all were found to be negative for signs of Golden Nematode.



Plum Pox Virus Quarantine and Eradication Program

The New York State Department of Agriculture in cooperation with the USDA and Cornell University is using a multi-tiered approach of survey, control, and education to eradicate PPV from New York. Division of Plant Industry personnel planned, coordinated and conducted the survey for the commercial stone fruit orchards, border survey and woodlots survey this past year.

No plum pox virus positive trees were found in the 2017 survey. The Regulated Area and the Nursery Stock Regulated Area (NSRA) will remain unchanged for Dutchess, Orange and Ulster counties.

After 6 years of survey with no positives we are releasing the Nursery Stock Regulated Area of Niagara county. The propagation ban will remain unchanged.

As part of the eradication survey, program staff surveyed 1,000 commercial stone fruit blocks totaling 837 acres in 4 counties for a total of 108,710 leaf samples collected. All samples tested negative using ELISA by the PPV program's designated labs.

A border survey was conducted for the 6th year in a row by NYSDAM personnel. This was an intense survey of wood lots and residential properties along the Niagara River. The target survey area started at Fort Niagara State Park and ran south along the Niagara River to the southern section of De Veaux woods State Park. The Niagara River separates Niagara County, New York and Ontario, Canada. Across the Niagara River within Ontario, Canada is a tender fruit growing region for Canada. The Plum Pox Virus is known to occur in this region and there is no longer an eradication program for PPV in Canada. The presence of the virus this close to the New York stone fruit growing region puts New York (and the United States) at risk, especially the Niagara County growers. A total of 1,858 samples were collected from 2,934 acres during the 2017 survey. All samples tested negative using ELISA by the designated lab.

The Plum Pox Virus Eradication program is on target to reach the goal of eradication within the foreseeable future. Cooperation from growers, land owners and the nursery industry has been critical to the success realized so far.

Emerald Ash Borer

In 2009 the State of New York was the 13th state to confirm the presence of emerald ash borer in the United States. On July 23rd 2009 quarantine was enacted to protect the State of New York from artificial spread of emerald ash borer.

To ensure compliance with our quarantine many inspections have been conducted at establishments that potentially could spread EAB. A total of 1,111 inspections of nurseries and

1,530 nursery dealers were inspected for ash nursery stock. In addition a total of 188 inspections were conducted of establishments under a compliance agreement to determine compliance of the emerald ash borer regulations as well as determining if the establishment is following the terms of their compliance agreement.

98 Compliance Agreements

60 Transport Agreements

23 Outside Mill Agreements

10 Inside Mill Agreements

5 Firewood Agreements

Spotted Lanternfly

On October 26th 2017 the Department was contacted by Pennsylvania Department of Agriculture about a finding of Spotted Lantern Fly at Mallinckrodt Pharmaceuticals located in Hobart NY. A thorough investigation of the facility and surrounding environs was conducted on October 27th. One dead spotted lanternfly was identified. The evidence concludes that the insect was transported to the facility from a supplier in the Pennsylvania quarantine area. The State of New York is planning efforts for 2018 that address prevention, detection and control of this pest if found. This pest is significant for the State of New York due to its impact on fruit crops especially apples and grapes. The State of New York's fruit crops are valued at over 360 million dollars.

Oak Wilt

Oak Wilt was confirmed in 2016 by NYSDAM and the New York State Department of Environmental Conversation (NYSDEC) in Suffolk, Kings, and Ontario counties. Additionally, in 2017 Oak Wilt was confirmed again in Schoharie county after efforts were made to eradicate the pathogen in 2008.

In response to current detections the NYSDEC has enacted a protective zone within the following counties of New York: Suffolk, Kings, Ontario, and Schoharie. The NYSDEC is currently conducting visual surveys, collecting leaf samples of symptomatic material for diagnostic, and eradicating infected material to control the spread of the pathogen within each protective zone. NYSDAM authorizes the movement of oak nursery stock out of a protective zone under a compliance agreement and a limited permit issued by a Horticultural Inspector from the Division of Plant Industry. In 2017, the Division issued 33 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 the summer 2017.

Phytophthora ramorum Nursery Survey

A survey was conducted of 3 nurseries that were determined high-risk based for *Phytophthora ramorum* based prior detections of the pathogen. The survey was conducted May-July 2017

consisting of water baiting traps, visual surveys, leaf sampling, and an environs survey of each nursery. At one of nursery sites a water baited trap yielded a positive detection; subsequent visual surveys and leaf samples were taken of symptomatic host material. This did not produce a positive detection in host plant material at this nursery. Additionally, an environs surveys were conducted at each nursery which returned negative results. All other remaining nurseries surveyed had negative results for *Phytophthora ramorum*.

Permits, Certification, and Export Services

Apple Shipments

NYSDAM is authorized by the Arizona Department of Agriculture and the California Department of Food & Agriculture to allow for the shipment of fresh New York grown apples to be shipped under a master permit program. The program allows for commercially grown New York apples to have a visual inspection for external evidence and to cut suspect apples for internal pest evidence of the following pests; apple maggot, plum curculio or other related pests. The program has been a successful endeavor between New York Apple Growers and the individual state Department of Agriculture's actively involved in the program. The fresh apple demand has been consistent from year to year with some fluctuation due to apple varietal



availability, apple size, demand for New York apples, associated shipping costs and competition with other regional apple crop growers.

After careful consideration and review of program procedures issuance of certificates for fresh apples to Arizona and California was extended to January 31st to accommodate the apple varietal differences and weather related harvesting issues. The current season for the fresh apple program currently runs from October 1st to January 31st. Each shipment is subject to a visual inspection, cutting of apples and an accompanying certificate with the following statement "The apples in this shipment from establishment number 123456 are shipped in accordance with the criteria specified under the Master Permit for the shipment of fresh apples from New York to Arizona and California". In 2017 more than 51,000 boxes and 520 bins of fresh apples were shipped to participating states in the program with no issues to report. The majority of New York grown fresh apples are shipped from Niagara, Orleans and Wayne Counties.

Systems Approach to Nursery Certification

Systems Approach to Nursery Certification (SANC) is a pilot program run by the National Plant Board (NPB) with oversight throughout the United States horticultural industry. Since 2014 several nursery and/or greenhouse growers throughout the United States have become SANC certified, and along with their state inspection agency are using an audit-based approach to reduce pest risk associated with commercial movement of plants. Each facility entering the program takes a careful look at critical control points (CCPs) within their growing and shipping process to assess what risks they face and how to prevent them. They incorporate best management practices (BMPs) and train all employees to take an active role in meeting the requirements they outline in their facility manual, with the goal of running a completely clean operation.

Dickman Farms LLC, a greenhouse facility in Auburn, NY, has been selected to participate in the second round of the SANC pilot program. Dickman Farms is a rooting station for Ball Horticultural Company, shipping rooted plant cuttings throughout the United States and Canada, as well as supplying finished plants throughout the northeast. They grow in more than 10 acres of modern greenhouse space, and rank among the ten largest growers in New York State.

In 2017 Dickman Farms staff, working with their NYSDAM horticultural inspector, began the process of "risk assessment," examining everything they do to grow a finished product, from receiving and production to maintenance and shipping. The process will continue in 2018 with the first on-site visit by SANC staff, and then development of the facility manual, basically a detailed plan of how Dickman Farms staff will keep pest risk to a minimum. Following completion of the facility manual, Dickman Farms will be audited by their NYSDAM horticultural inspector along with a SANC team, before receiving final acceptance into the program.

Commodity Inspection, Sampling, and Analysis

New York State Seed Testing Laboratory

The laboratory opened Jan. 3, 2017 and received 473 service samples and 622 regulatory samples for 2017. We hired a temporary worker to assist with sample receiving and data entry for 8 weeks in the spring. A technician was hired in April to begin training on seed analysis. Staff from within the Division of Plant Industry as well as other divisions assisted in planting samples when needed. Lab remodeling was completed and additional equipment and supplies were purchased as needed.

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 2017, 644 seed samples were taken. 323 samples were analyzed and 83% of the samples were found to be accurately labeled. Approximately 88 seed labelers were sampled. There were 600 seed inspections performed.

	Turf/Lawn Seed	Ag Seed	Vegetable Seed
Samples Analyzed	56	233	34
Samples in compliance with labeling	40	194	33
Samples with Violations	16	39	1

Fertilizer, Lime & Soil and Plant Inoculants (Article 10, 9A, 10A)

• In 2017, 147 commercial fertilizer samples were obtained for analysis and comparison to their labeled guarantees. Sixty five percent of the fertilizer products sampled were found to be compliant to their stated guarantees. In addition, 23 agricultural liming materials were also sampled for analysis.

	Fertilizer	Liming Materials	Soil & Plant Inoculants
Firms or Brands Licensed	637	208	696
Inspections Performed	482	258	100
Samples Taken	147	23	N/A

Ammonium Nitrate Inspection

There were 12 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 with facilities in the
state were inspected and found to be in compliance with the regulations.

Stop Sale Orders

186 Stop Sales on products/distributors were issued at approximately 94 facilities.

Invasive Species and Noxious Weeds

Cooperative Agricultural Pest Survey (CAPS)

The 2017 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 <u>visual</u> targets were looked for by 16 Horticultural Inspectors. The State visual targets are Boxwood Blight, Late Blight on Tomato, and P. Ramorum Blight. The Federal visual targets are Japanese Wax Scale, Southern Bacterial Wilt, and Tremex Woodwasp. The Hort. inspectors visited many nursery/greenhouse sites inspecting for pests and diseases on multiple host plants. The six different targets times the number of sites visited came up to be almost 3,900 sites with over 7 million actual plants inspected. There were only 11 possible specimens collected and no positive identifications were made for those six targets.

There were four additional target species surveyed by using a trap with an individual lure to attract each of the four targets. These trap and lure targets are Oak Ambrosia Beetle, Oak Processionary Moth, Tomato Leafminer, and Variegated Golden Tortrix. A total of 65 sites were used with a total of 134 traps collecting almost 3,600 specimens. There were no positive target identifications made by the official identifier, Cornell University Insect Diagnostic Lab.

All the 2017 results were entered into the NAPIS program. These same Federal targets from the highest predicted impact pest lists, looking to enter into the US will be the same priority targets planned to be surveyed for the year 2018.

2017 Farm Bill Survey Summary Report

Stone Fruit Commodity Survey

A survey was conducted of stone fruit orchards outside the existing quarantine (Niagara, Ulster, Orange and Dutchess Counties) for Plum Pox Virus (PPV). Counties were selected based on risk for having PPV looking at distance from previous positive detections in adjacent New York counties and Ontario, Canada and rotating orchards within the State. 27,995 samples were collected from 23 counties.

County	Total Blocks	Samples
		40
Albany	1	12
Cayuga	3	48
Chautauqua	17	272
Clinton	1	188
Columbia	123	8,886
Greene	14	214
Livingston	3	406
Monroe	12	993
Onondaga	2	127
Ontario	55	2,195
Orleans	35	779
Putnam	5	146
Rockland	6	535
Rensselaer	2	278
Saratoga	24	710
Schyler	13	275
Seneca	5	71
Suffolk	97	4,904
Tompkins	14	1,165
Wayne	53	3,736
Washington	2	32
Westchester	23	1,203
Yates	12	820
		320
Overall Totals:	522	27,995

Trapping was conducted for the European Cherry Fruit Fly (*Rhagoletis cerasi*). 12 sticky traps with the appropriate lure were placed in 2 counties (Niagara & Orleans), traps were monitored throughout the season. Three thousand eight hundred and fifty-four (3,854) fly specimens were collected for determination. No specimens determined to be European Cherry Fruit Fly.

Trapping was conducted for the Cherry Blossom Moth (*Argyresthia pruniella*). 12 Wing traps with the appropriate lure were placed in 2 counties (Niagara & Orleans), traps were monitored throughout the season. One hundred and twenty-seven (127) moth specimens were collected for determination. No specimens determined to be Plum Fruit Moth.

Forest Pest Outreach



This year our forest pest outreach was executed in close partnership with Cornell Cooperative Extension offices across New York State. In Erie County, a two day workshop was organized. The first day consisted of a training session focused on ALB, EAB, SLF and HWE. On the following day, participants including volunteers and NYSDAM staff, split into groups and conducted high risk visual surveys in the area. All surveys were negative for signs of ALB, SLF and HWE. Additional "train-the-trainer" workshops were conducted by CCE offices across the state, highlighting important pests in their respective regions. Finally, a group of CCE educators created a "Forest Pest Handbook". The handbook goes into detail on 29 significant forest pests in a user-friendly format, with many visual aids to assist in identification. The handbook is

available electronically for CCE educators in "CCE Hort Resource Sharing Library" and to the public on the NYS IPM website.

Apiary Inspection and Honeybee Health

The 2017 Apiary Inspection season went from May to November and had two apiary inspectors along with some additional AFB disease identifiers looking for American Foulbrood disease (AFB). The season had 72 cases of AFB disease from 18 beekeepers. The majority of the cases of AFB disease or 93% were from the 14 hobby beekeepers or almost 80% of the total number of diseased beekeepers This sudden rise in the cases of AFB disease is the result of the hobby beekeepers recognizing a few of their colonies are becoming weaker during the active bee season, while their other colonies are staying strong. The basic change is the beekeepers are taking the initiative to ask for help from the Beltsville bee Lab by the lab identifying an AFB disease sample sent in by the beekeepers or the beekeepers are contacting the apiary inspectors for their assistance to identify the AFB diseased colonies in their hobby operation. The result of the Beltsville positive AFB disease cases, the apiary inspectors are finding additional AFB disease colonies in half of these hobby beekeepers operations beyond the initial AFB disease cases that were identified by Beltsville Bee Lab. The Apiculturist has prepared a power Point presentation to educate and train beekeepers to identify AFB disease in their colonies, the same training program the apiary inspectors use for their training. Twelve local hobby beekeeper clubs have received this power point training in 2017. More clubs will receive this training in 2018.

The additional apiary inspection programs in 2017 include by NYS law the inspection of NYS produced Nucleus colonies being sold for the most part in NYS. The apiary inspectors completed the National Honey Bee Survey for the eighth year on twenty four beekeepers. Finally, by NYS law the apiary inspectors certified 44,800 colonies for 53 beekeepers to travel interstate to a southern state for the winter season. The apiary inspectors inspected about 8.8% or almost 4,000 colonies to be certified for travel to other states.

Industrial Hemp

Previous legislation only allowed for the authorization of 10 industrial hemp growing sites throughout the state of New York. In 2017, legislation was amended to remove the 10 license cap and the program was opened to include private farms to work with NYSDAM. As a result, the Department's Industrial Hemp Agricultural Research Pilot Program has expanded significantly since its inception in 2016. New York is beginning to emerge as a leader in industrial hemp research nationwide, all the while creating jobs and diversifying the agricultural economy throughout the state.

• 106 research partner applications received during the 2017 application period

- 77 industrial hemp growers currently authorized with the Department of Agriculture and Markets
- 21 registered processors
- Hemp breeding and certification program in progress spearheaded by Cornell University
- Department facilitation of international seed importation
- Industrial Hemp Working Group established