

Pest Detection / CAPS Survey Accomplishment Report – FY2020

Year:	2020
State:	Connecticut
Cooperative Agreement Name:	Cooperative Agricultural Pest Survey
Cooperative Agreement Number:	AP20PPQFO000C004
Project Funding Period:	01/01/2020 – 12/20/2020
Project Report:	PD / CAPS Survey Report
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Quarterly Report	<input type="checkbox"/>
Semi-Annual Accomplishment Report	<input type="checkbox"/>
Annual Accomplishment Report	<input checked="" type="checkbox"/>

Pest Detection / CAPS Survey Accomplishment Report – FY2020

- A. Write a brief narrative of work accomplished. Compare actual accomplishments to objectives established as indicated in the work plan. If reporting on a combined surveys work plan, report accomplishments by survey. When the output can be quantified, a computation of cost per unit is required when useful. *

Our objective was to conduct a nursery survey to determine if any of the following hardwood pests had entered Connecticut through the nursery or lumber trade:

- oak processionary moth (OPM), *Thaumetopoea processionea*
- oak ambrosia beetle (OAB), *Platypus quercivorus*
- Japanese oak wilt (JOW), *Raffaelea quercivora*
- pear leaf blister moth (PLBM), *Leucoptera mallifoliella*
- velvet longhorned beetle (VLB), *Tricoferus campestris*
- citrus longhorned beetle (CLB), *Anoplophora chinensis*
- spotted lanternfly (SLF), *Lycorma delicatula*

Funding Amount	Total Number of Traps	Cost Per Unit
Proposed = \$63,563	Proposed = 200	Proposed = \$ 317.81
Actual = \$63,563	Actual = 200	Actual = \$ 317.81

1. Survey methodology (trapping protocol):

Nursery Survey:

OPM and PLBM:

Wing and delta traps following national protocols developed by APHIS for oak processionary moth (OPM), and pear leaf blister moth (PLBM) will be installed at fifty high risk sites (at or in the vicinity of wholesale and retail nurseries and nursery growing yards) beginning the first full week of June. The traps will be serviced every two weeks, and lures replaced as needed according to National Oak and Stone Fruit Commodity survey guidelines. Sorted samples containing suspect Lepidoptera will be sent to the Oregon Department of Agriculture Insect Pest Prevention and Management (IPPM) Lab for identification and screening.

OAB and VLB:

One lindgren 8-funnel trap and one cross-vane panel trap following national protocols developed by APHIS for oak ambrosia beetle (OAB) and velvet longhorned beetle (VLB) will be installed in fifty high-risk sites (at or in the vicinity of wholesale and retail nurseries and nursery growing yards) beginning the first full week of June. Traps will be serviced every two weeks and lures replaced as needed, according to National Exotic Wood Boring and Bark Beetle survey guidelines. All collected samples from lindgren and cross vane panel traps will be sent to the Carnegie Museum of Natural History for sorting, screening, and identification.

JOW, CLB, and SLF:

Visual surveys for spotted lanternfly (SLF), Japanese oak wilt (JOW), and citrus longhorned beetle (CLB) will take place during the mid to late summer season at the fifty high-risk sites (at

or in the vicinity of wholesale and retail nurseries and nursery growing yards). Nursery peripheries will also be scouted for presence of tree-of-heaven, the preferred reproductive host of spotted lanternfly. Additionally, host species (including Aceraceae, Betulaceae, Fagaceae, Rosaceae, Ulmaceae) will be inspected for potential CLB infestation, the presence of SLF, and symptoms consistent with Japanese oak wilt.

	Common Name	Scientific Name
Pest:	oak processionary moth	<i>Thaumetopoea processionea</i>
	oak ambrosia beetle	<i>Platypus quercivorus</i>
	Japanese oak wilt	<i>Raffaelea quercivora</i>
	pear leaf blister moth	<i>Leucoptera mallifoliella</i>
	velvet longhorned beetle	<i>Tricoferus campestris</i>
	citrus longhorned beetle	<i>Anoplophora chinensis</i>
	spotted lanternfly	<i>Lycorma delicatula</i>

	Proposed	Actual
Sites (Locations):	50	50
Traps:	200	200

Number of Counties:	8
Counties:	Fairfield, Litchfield, New Haven, Hartford, Middlesex, Tolland, New London, and Windham.

2. Survey dates:

Survey Dates:	Proposed	Actual
Trapping	6/1/2020 – 8/31/2020	6/2/2020 – 10/20/2020
Visual	7/1/2020 – 10/31/2020	8/14/2020 – 11/18/2020

3. Benefits and results of survey:

Nursery Survey:

OPM and PLBM:

We installed wing traps for oak processionary moth (OPM), and delta traps for pear leaf blister moth (PLBM) at 50 sites beginning June 2nd. We serviced the traps about every two weeks, and replaced the lures as needed according to National Oak and Stone Fruit Commodity survey guidelines. We made a total of 269 wing trap and 259 delta trap collections. We sorted all these trap collections and shipped 116 sticky trap inserts to Oregon Department of Agriculture for further screening. No suspect moths were identified.

OAB and VLB:

We installed one lindgren 8-funnel trap for oak ambrosia beetle (OAB) and one cross-vane panel trap for velvet longhorned beetle (VLB) at 50 sites beginning June 2nd. We serviced the

traps about every two weeks and replaced the lures as needed, according to National Exotic Wood Boring and Bark Beetle survey guidelines. The Carnegie Museum of Natural History’s Biodiversity Services Facility screened all beetles collected during this survey. A total of 269 traps were screened for *Platypus quercivorus* and 262 traps were screened for *Tricoferus campestris*. One target insect was identified (*T. campestris*) in a trap from New Haven county. The ambrosia beetle *Anisandrus maiche* was identified from two sample collections in New Haven county. Positive identifications of this beetle previously occurred in New Haven and Fairfield counties during PPQ surveys from 2017 to 2019. *Halyomorpha halys* was identified seven times in sample collections from Litchfield, Middlesex, and New Haven counties. Also, two *Agrilus planipennis* insects were identified in one sample from Middlesex County.

SLF, JOW, and CLB:

We started visual surveys for spotted lanternfly, Japanese oak wilt, and citrus longhorned beetle on August 14th. We scouted nursery peripheries for presence of tree-of-heaven, the preferred reproductive host of SLF. Additionally, we inspected host species (including Aceraceae, Betulaceae, Fagaceae, Rosaceae, Ulmaceae) for potential CLB infestation, the presence of SLF, and symptoms consistent with Japanese oak wilt. We were able to do only eight visual inspections at our nursery sites. No SLF, CLB, and JOW were found at these eight sights. Soon after starting planned visual inspections, an established population of spotted lanternfly was found in Greenwich, CT and all planned visual surveys at nurseries stopped. Instead we focused our efforts on delimiting grid survey for SLF around confirmed or suspected SLF sightings. We inspected a total of 707 sites for spotted lanternfly and two of these sites were positive for SLF.

	Positive	Negative	Total Trap Collections
Traps:			
<i>Thaumetopoea processionea</i>	0	269	269
<i>Platypus quercivorus</i>	0	269	269
<i>Leucoptera mallifoliella</i>	0	259	259
<i>Tricoferus campestris</i>	1	261	262

	Positive	Negative	Total Site Number
Visual:			
<i>Raffaelea quercivora</i>	0	8	8
<i>Anoplophora chinensis</i>	0	8	8
<i>Lycorma delicatula</i>	2	705	707

4. Database submissions:

Was all Pest Detection / CAPS survey data entered into the National Agricultural Pest Information System (NAPIS)? If not, please provide a justification. *ADODRs should consult with the [CAPS Accountability Report](#) to confirm data entry.*

All Survey data was entered into the National Agricultural Pest Information System (NAPIS).

B. If appropriate, explain why objectives were not met. *

Due to Covid-19 pandemic, we were unable to hire two seasonal assistants and instead hired only one. As a result, it took us longer to deploy all the traps. Majority of the traps (172) were set up during the month of June, although 28 of them were set up in July. For the same reason of not having two seasonal workers, we were not always able to survey traps at two-week intervals. Some took more time. On September 21, 2020, the Connecticut Agricultural Experiment Station (CAES) in cooperation with USDA APHIS Plant Protection and Quarantine (PPQ) announced the detection of multiple live adults of the spotted lanternfly (SLF) in Greenwich, Connecticut. Most of trapping and visual inspections for CAPS survey were halted and instead we focused on delimiting grid survey for SLF. Because of shifting focus to SLF grid survey, we did not perform the 5th collection at two locations and did not perform the 6th collection at 25 CAPS locations. Due to finding SLF population in September, we also stopped doing visual inspections at our CAPS nursery sites. The proposed plan was to inspect each 50 nursery sites for SLF, JOW, and CLB although in the end we performed only eight inspections at those sites. Once we switched to only doing SLF grid survey, our team inspected a total of 707 (instead of 50) sites for spotted lanternfly and had two positive locations.

C. Where appropriate, explain any cost overruns or unobligated funds in excess of \$1,000. *
No cost overruns occurred.

**indicates information is required per 7 CFR 3016.40 and 7 CFR 3019.51*