This Work Plan reflects a cooperative relationship between The Connecticut Agricultural Experiment Station (the Cooperator) and the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ). It outlines the mission-related goals, objectives, and anticipated accomplishments as well as the approach for administering (work plan development, accomplishment reports and data management) and conducting a state CAPS program of outreach and pest survey; and the related roles and responsibilities of the parties [e.g., APHIS role(s) and Cooperator role(s)] as negotiated.

I) OBJECTIVES AND NEED FOR ASSISTANCE

What relevant need or problem within the cooperator’s mission area requires a solution in carrying out a public purpose of support or stimulation authorized by a law of the United States? How does the need or problem align with the mission area and strategic goals of APHIS?

Connecticut needs to protect its commercial, agricultural, and natural environment from exotic insects, weeds and diseases that may come in from other countries through various routes. The purpose of this project is to build the infrastructure of the Connecticut CAPS program and enhance communication and networking among targeted stakeholders to support detection and response efforts for exotic pests. The ultimate goal of this work plan is to further the Homeland Security Initiative by protecting our nation’s and Connecticut’s food production and natural resources from exotic pests and bioterrorism.

The health of Connecticut’s agricultural and horticultural industries, as well as its environment, depends on keeping pests, both exotic and native, under control. The 2012 Census of Agriculture lists 5,977 individual farms in Connecticut, totaling 436,539 acres.
Top production by total sales include nursery, greenhouse, floriculture and sod (45.9%) milk from cows (12.7%), poultry/eggs (8.9%), vegetables, melons, potatoes, and sweet potatoes (6.6%), tobacco (6.5%) and fruits, tree nuts and berries (5%). There are also currently 166 farms in Connecticut that produce maple syrup, generating a total of 10,495 gallons per year as of 2012.

According to a 2010 study by UConn that used 2007 Agricultural Census data, the CT agricultural industry generates approximately 20,000 jobs in the state. The study also concluded that around $250 million in revenue was generated for the state solely through the forest product industry, which provides lumber, flooring, building materials, firewood, mulch, and specialty items.

Introductions of exotic pests and the ensuing control efforts that must be undertaken for their control may negatively impact agricultural crops, pastures, and forests, resulting in severe economic losses for the state. Subsequent environmental losses from exotic species could also result in reduction in air, soil and water quality, reduced open space, and endanger native wildlife.

II) RESULTS OR BENEFITS EXPECTED

The Cooperator seeks to conduct a program which is expected to result in:
What results or benefits will be derived from the cooperative effort? Use of bulleted Statements is acceptable.

- A point of contact, the State Survey Coordinator (SSC), to coordinate and ensure that the CAPS program objectives are met.
- An annually updated pest list developed by the state CAPS committee (SCC) relative to Connecticut and its natural and agricultural environment.
- Accurate and timely survey, data entry, and management of the CAPS program.
- Improved networking with stakeholders including but not limited to nursery and forest product industries.
- Efficient and effective response to pest emergencies from agriculture stakeholders, the nursery and forest product industries and concerned residents.
- Improved outreach about pests of concern and the Connecticut CAPS program to stakeholders and other state agencies.

III) APPROACH

What is the plan of action or approach to the work?

A. The Cooperator will:

1. By function, what work is to be accomplished?
(Enter specific goals and objectives for the following infrastructure duties). Activities:
   1. Committee Service:
      - SSC will maintain a state CAPS committee that will meet at least twice a year to discuss fostering the goals of CAPS.
      - The 2017 Connecticut priority pest list will be discussed and developed from APHIS, CAES and state...
committee member input during the spring 2016
statewide committee meeting. 2016 pest list:

<table>
<thead>
<tr>
<th>Adoxophyes orana</th>
<th>Summer fruit tortrix moth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agrilus biguttatus</td>
<td>Oak splendor beetles</td>
</tr>
<tr>
<td>Agrilus planipennis</td>
<td>Emerald ash borer</td>
</tr>
<tr>
<td>Anoplophora chinensis</td>
<td>Rough shouldered longhorned beetle</td>
</tr>
<tr>
<td>Anoplophora glabripennis</td>
<td>Asian longhorned beetle</td>
</tr>
<tr>
<td>Archips xylosteana</td>
<td>Variegated golden tortrix</td>
</tr>
<tr>
<td>Cylindrocladium pseudonaviculatum</td>
<td>Boxwood Blight</td>
</tr>
<tr>
<td>Epiphyas postvittana</td>
<td>Light brown apple moth</td>
</tr>
<tr>
<td>Lobesia bolrana</td>
<td>European grape vine moth</td>
</tr>
<tr>
<td>Lymatricia dispar (Asian strain)</td>
<td>Asian gypsy moth</td>
</tr>
<tr>
<td>Monilia polyspora</td>
<td>Asiatic brown rot</td>
</tr>
<tr>
<td>Monochamus alternatus</td>
<td>Japanese pine Sawyer</td>
</tr>
<tr>
<td>Phytophthora ramorum</td>
<td>Ramorum Blight</td>
</tr>
<tr>
<td>PLUM POX</td>
<td>PPV</td>
</tr>
<tr>
<td>Platypus quercivorus</td>
<td>Oak ambrosia beetle</td>
</tr>
<tr>
<td>Tetrospinum castaneum</td>
<td>Black spruce beetle</td>
</tr>
<tr>
<td>Tetrospinum fuscum</td>
<td>Brown spruce longhorn beetle</td>
</tr>
<tr>
<td>Thaumatothria leucotreta</td>
<td>False codling moth</td>
</tr>
<tr>
<td>Tortrix viridana</td>
<td>Green oak tortrix</td>
</tr>
<tr>
<td>Tropilaelaps clareae</td>
<td>Bee mite</td>
</tr>
<tr>
<td>Trypodendron domesticum</td>
<td>European hardwood ambrosia beetle</td>
</tr>
<tr>
<td>Lycomria delicatula</td>
<td>Spotted Lanternfly</td>
</tr>
<tr>
<td>Dendroctonus frontalis</td>
<td>Southern Pine Beetle</td>
</tr>
<tr>
<td>Candidatus Phytoplasma australiense</td>
<td>Australian grapevine yellows</td>
</tr>
<tr>
<td>Candidatus Phytoplasma prunorum</td>
<td>European stone fruit yellows</td>
</tr>
<tr>
<td>Candidatus Phytoplasma mali</td>
<td>Apple proliferation</td>
</tr>
</tbody>
</table>

- After 2017 CAPS guidelines are released, SSC will review 2016 CAPS AHP and commodity pest lists, GPDD and NAPFFAST to make recommendations to the state CAPS committee in order to facilitate making the 2017 Connecticut pest list from which 2017 survey pests will come.

2. Other Survey Work:
- SSC will enter data into PPQ approved database (NAPIS) as requested by PPQ.
- SSC will enter new pest records into PPQ approved database within 48 hours of confirmation of identification per PPQ.
- SSC will collect survey data and enter it into a PPQ approved database throughout the survey season as data becomes available.
- SSC will prepare 2016 Farm Bill survey and outreach workplans if approved.
• SSC will submit 2017 survey trap and lure orders into the IPHIS supply ordering database and follow up on procurements in September 2016.
• SSC will order additional survey supplies for 2016 Farm Bill surveys, if required.

b. Outreach and Education:
   1. Outreach:
      • SSC and trapping staff will educate growers about the pests being trapped and the risk they pose to their crop.
      • Throughout the year, SSC and other CAES personnel will staff tables at industry meetings, give talks to grower groups as requested regarding the CAPS mission and pests of concern.
      • Throughout the year, SSC will provide CAES webmaster with updates to the CAES CAPS website, including pest information, work plans, committee meeting minutes and reports.
      • Throughout the year, SSC will interact with the public, to gain awareness of new pests and established pests of public concern.
      • SSC will obtain or create fact sheets about the 2015 survey pests to give to cooperators.
      • SSC will mail survey information packets and pest fact sheets to growers participating in pest surveys.

   2. Interviews (TV/Radio/Newspaper/Magazines):
      • SPRO and/or SSC will provide information to media outlets as requested.

   3. Outreach materials (Pamphlets/ brochures/ posters):

   4. Publications:

   5. Public Service Announcements (PSA):
      • CAES will produce press releases regarding any new state detections of pests.

c. Meetings:
   1. Conference calls:
      • SSC will join in on bi-monthly regional CAPS SSC conference calls.

   2. Conferences:
      • SSC will attend the Eastern plant board/CAPS meeting in April, as funding allows.
      • SSC will attend the bi-annual national CAPS meeting if it occurs in December.
      • SSC will participate in the monthly regional SSC conference calls.
      • SSC and other CAES personnel will present information about CAPS at grower meetings as able and invited.
3. **Webinars:**
   - SSC will attend relevant webinars involving the CAPS program or relevant pests.

d. **Training:**
   - Train other Connecticut CAPS personnel in database use and data entry as needed.
   - Train summer workers in trapping and survey functions during trapping season.

e. **Other:**

2. **What is the quantitative projection of accomplishments to be achieved?**
   a. By activity or function, what are the anticipated accomplishments by month, quarter, or other specified intervals?
      - Pest detection survey, outreach and other infrastructure project activities will be completed in the time frame outlined in this work plan.
      - All data collected from the pest detection surveys will be entered into the PPQ approved database (NAPIS, IPHIS) in the time frames outlined in this work plan.
      - Maps of pest detection survey activities will be produced to aid in the planning of future surveys, pathway risk and analysis and outreach activities. CAES will provide data to PPQ for map making purposes.
      - A semi-annual report will be submitted in July, and an annual report will be submitted in January.
   b. What criteria will be used to evaluate the project? What are the anticipated results and successes?
      - Database records will be reviewed to ensure that data from pest detection surveys has been entered.
      - Accomplishment reports, websites, supporting outreach materials, and maps will be reviewed.

3. **What numbers and types of personnel will be needed and what will they be doing?**
   1. Dr. Kirby Stafford, SPRO and Dr. Victoria L. Smith, DSPRO, will provide informational support and state guidance. Dr. Smith has immediate oversight of the CAPS program.
   2. Katherine Dugas, CAES, will serve as SSC. She will perform the duties outlined in section IIIA.

4. **What equipment will be needed to perform the work?** Include major items of equipment with a value of $5,000 or more.
   a. What equipment will be provided by the cooperator?
      - Cooperator will provide large format printer and state vehicle
   b. What equipment will be requested from APHIS on loan?
• None.

c. What equipment will be purchased in whole or in part with APHIS funds?
  • None.

d. How will the equipment be used?
  • Large format printer will be used for producing outreach materials; state vehicle will be used to conduct survey and for travel to meetings and outreach events.

e. What is the proposed method of disposition of the equipment upon termination of the agreement/project?
  • N/A

5. Identify information technology equipment, e.g., computers, and their ancillary components.

1. IT equipment currently used by SSC:
   a. Laptop – purchased with APHIS funds from previous agreement
   b. LCD Projector – purchased with APHIS funds from previous agreement
   c. GPS Unit – purchased with APHIS funds from previous agreement

2. IT equipment currently used by all personnel:
   CAES network computers, access to Internet via CAES computer network.

6. What supplies will be needed to perform the work?
   a. Supplies provided by the Cooperator:
      • Office supplies
   b. Supplies provided by APHIS:
      • Printed outreach material when available.
   c. Supplies purchased in whole or in part with APHIS funds:
      • Large format printer paper
      • Color printer ink cartridges
   d. How supplies will be used:
      • Supplies will be used to produce work plans, reports, and to produce and distribute outreach materials.
   e. Proposed method of disposition of the supplies with a cumulative value over $5,000 upon termination of the agreement/project:
      • N/A

7. What procurements will be made in support of the funded project and what is the method of procurement (e.g., lease, purchase)?
   (Cooperator procurements shall be in accordance with OMB Circulars A-102 or A110, as applicable.)
   • The state system of purchasing from contracted vendors will be used.

8. What are the travel needs for the project?
a. Local travel to meetings and outreach events will be approved by the Experiment Station Director and Mr. Last. Cooperator will provide a vehicle for local travel as state allows. State will cover operational costs.

b. SSC will drive to the regional Plant Board/CAPS meeting using state provided vehicle. Dr. Theodore Andreadis and Mr. Michael Last will approve overnight travel. If it occurs, SSC will travel to the National CAPS meeting, to present CT CAPS findings and to interact with counterparts from other states.

9. Reports:
Submit all reports to the APHIS Authorized Department Officer’s Designated Representative (ADODR). Reports include:

a. Narrative accomplishment reports in the frequency and time frame specified in the Notice of Award, Article 4.


10. Are there any other contributing parties who will be working on the project?

a. List Participating Agency/Institution: The University of Connecticut (UConn) and the CT Department of Energy and Environmental Protection (DEEP)

b. Describe the nature of their effort: Information sharing regarding CAPS pests, CAPS survey and other plant pest issues. Member participation in statewide CAPS committee meetings and outreach activities.

C. APHIS Will:

1. Outline the Agency’s (USDA APHIS PPQ) substantial involvement.

a. Include any significant Agency collaboration and participation
   • Providing any new information that becomes available on pests of concern, appropriate forms, and review data.
   • Providing the following resources: funds to the Cooperator to cover costs outlined in the financial plan; specific appropriated funding in the level authorized by APHIS Field Operations will be dedicated to the delivery of CAPS objectives listed above.
   • Making arrangements for taxonomic support in confirming identification of suspect exotic pests.
   • Producing maps of the survey activities with the location data (latitude and longitude) provided by the Cooperator, if Cooperator does not have the necessary software or resources to produce maps.
   • Providing preprinted outreach materials when available.

b. Project oversight and performance management
   • The following personnel:
The State Plant Health Director, USDA APHIS, will provide informational support, review performance and federal guidance.

Pest Survey Specialist, USDA APHIS will assist in developing CAPS pest survey protocols, pest risk analysis, IPHIS training, work plan and budget development and other related activities.

c. APHIS will provide the equipment requested by the cooperator in 4.b. & c.

d. APHIS will provide the supplies requested by the cooperator in 6.b. & c.

IV.) SIGNATURES

[Signatures and dates]