

Work Plan Fiscal Year 2009

Cooperator:	Illinois Department of Agriculture		
State:	Illinois		
Project:	Oak Commodity Survey		
Project funding source:	Survey of National Concern <input checked="" type="checkbox"/> Survey of State Concern <input type="checkbox"/> Other Line Item Pest <input type="checkbox"/>		
Project Coordinator:	Kelly Estes, Illinois Natural History Survey		
Agreement Number			
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This Work Plan reflects a cooperative relationship between the Illinois Department of Agriculture (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 conducting an oak commodity survey and the related roles and responsibilities of the parties [e.g., mutual roles, APHIS role(s), 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?)

Forests cover one-third of the United States. Approximately 12% of Illinois is forested (4.4 million acres). Of that forested land in Illinois, 53% of the forest cover consists of oak and hickory. This oak commodity survey allows for the survey and potential detection of exotic pests may become established in oak stands – in natural areas as well as residential neighborhoods. There are many introduced pests that if established in Illinois, would not only threaten the diversity of our natural areas, but dramatically impact our forest product industry and nursery trade.

Of these potential pests, several are at high risk for establishment, spread, economic damage, and environmental damage. For instance, oak splendour beetle is closely related to the emerald ash borer, which has killed millions of trees in infested areas. The oak splendour beetle, as well as other phloem feeding pests that could

potentially become established, not only predispose trees to secondary insects and pathogens, but their injury impacts the quality of timber, pulp, and other forest products.

Other pests included in the survey, summer fruit tortrix, light brown apple moth, false codling moth, and Asian gypsy moth, have wide host ranges that include oak, but they are major pests of other hosts, such as fruit trees and fields crops. Both of these industries are important to Illinois agriculture.

We also wish to include two pathogens in the oak commodity survey. Oak wilt, has the potential to kill large numbers of oak trees. While it is present in the upper Midwest, its distribution is unknown in Illinois. Sudden oak death, on the other hand, is not known to be present in Illinois. Its host range also extends past oak species and can be detrimental to several ornamental plants. Once infected, oak trees experience severe mortality.

II) RESULTS OR BENEFITS EXPECTED

The Cooperator seeks to conduct a program which is expected to result in:

A. What results or benefits will be derived from the cooperative effort? Use of bulleted Statements is acceptable.

The cooperator seeks to conduct a cooperative agriculture pest survey program aimed at the early detection of invasive oak pests. We propose to conduct this survey in two parts. The first part of the survey would consist of a trapping network coordinated by SSC Estes throughout the state targeting light brown apple moth, summer fruit tortrix, false codling moth, and tremex wasp. The second part of the survey will consist of a visual survey targeting Illinois nurseries and sites used for trapping in the first part of the survey. In cooperation with the Illinois Department of Agriculture, visual surveys will be completed to determine the presence of the oak splendour beetle, light brown apple moth, Asian gypsy moth, sudden oak death, and oak wilt. Should symptoms be present during visual inspections, samples will be taken to confirm any potential pest detections.

All survey data generated from this effort will be entered into the NAPIS database according to NAPIS reporting requirement outlined in the 2009 National CAPS guidelines.

III) APPROACH

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

The first part of the proposed survey consists of establishing a trapping network across the state to target the light brown apple moth, summer fruit tortrix moth, false codling moth, and tremex wasp. Trapping will begin June 15 and continue through mid-September. Trap will be serviced and collected bi-weekly.

The visual part of the survey will be conducted in part with regular nursery inspections conducted by the Illinois Department of Agriculture. During nursery

inspections, surveyors will conduct visual surveys on stock at the business, looking for symptoms caused by the presence of the oak splendour beetle, light brown apple moth, Asian gypsy moth, sudden oak death, and oak wilt. These same targets will also be surveyed for by SSC Estes when completing the trapping portion of the survey. Possible finds will be sampled and submitted for identification/verification. Survey guidelines and reporting forms will be provided by SSC Estes. Data will be recorded, then summarized and entered into NAPIS by SSC Estes.

The goal of this program is to combine multiple pest detection surveys to aid in the surveillance for invasive species. Funding is requested to provide trapping materials. This survey will require travel; vehicle operation, mileage, and supplies associated with the travel are requested.

A. The Cooperator and APHIS Mutually Agree to/that:

- Maintain a State Cooperative Agriculture Pest Survey committee that will meet at least once a year to discuss fostering the goals of CAPS.
- Work together in carrying out field surveys, trapping, and data collections, setting emphasis on pest/diseases particularly identified that may pose an immediate risk to the agriculture of this state and the United States.
- Have representation at National and/or Regional annual meetings
- Utilize Cooperator and APHIS program funding, as outlined in the Financial Plan, within authorized parameters to support survey and detection activities. In addition, specific appropriated funding in the level authorized by the PPQ Eastern Region will be dedicated to the delivery of CAPS objectives listed above.

1. 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?
 - The Illinois SSC, PSS and IDA representatives will identify potential survey sites during winter 2009.
 - Visual surveys will begin in May 2009.
 - Pheromone trap placement will begin in June 2009.
 - Institute bi-weekly trap collection circuit upon placement of traps.
 - Continue visual surveys, trap collection and replacement according to survey protocols.
 - Forward suspect specimen with PPQ Form 391 to area identifier as needed.
 - Complete survey, September/October 2009.

- b. What criteria will be used to evaluate the project? What are the anticipated results and successes?
- Pest detection surveys, outreach, and other project activities, are completed in the manner and time frame outlined in Section III.
 - All data collected from the pest detection surveys is entered into the NAPIS database in the timeframes outlined in Section V.
 - Maps of the pest detection survey activities are produced to aid in planning of future pest detection surveys, pathway risk analysis, and outreach activities
- c. What methodology will be used to determine if:
- Review the NAPIS database to ensure that data from the pest detection activities has been entered.
 - Review the accomplishment reports, supporting outreach materials (if applicable), and maps.

2. What type of data will be collected and how will it be maintained?

- a. Address timelines for collection and recording of data.
- Traps will be collected biweekly, with SSC Estes screening traps.
 - Suspects will be forwarded to USDA identifier for further identification.
 - Visual surveys will be recorded on data sheets, suspect samples will be collected for further identification.
 - Data will be maintained with written and electronic samples.
 - Illinois SSC will compile negative summary records for submission to NAPIS database at completion of survey.
 - Data entry for positive record of target pest within 48 hours of confirmation.
- b. How will APHIS be provided access to the data?
- Final report to National Plant Board, December 2009.
 - Final written report to Eastern Region, April 2010.

B. The Cooperator will:

- Provide a State Survey Coordinator responsible for coordinating and completing all activities outlined in this Oak Commodity Work Plan.
- The SSC will coordinate survey activities and ensure data entry, management, and quality.
- The SSC will act as liaison with the State PPQ office (including the SPHD and PSS) and the Illinois Department of Agriculture, the University of Illinois, and other cooperators in the development of exotic pest surveys and management plans.

1. By function, what work is to be accomplished?

- The Illinois CAPS program will work with the Illinois Department of Agriculture representative for the duration of the visual survey, which is expected to begin in May and be completed in September.
- SSC Estes will coordinate the placement of traps. (5 sites in 6 areas of the state)
- Traps will be checked and serviced bi-weekly for the duration of the survey which is expected to begin in June and be completed in September.
- Illinois SSC will be responsible for screening all trap collections for target species. Suspect specimens will be submitted along with PPQ Form 391 to regional identifier.
- Illinois SSC will provide reference material for visual surveys of oak splendour beetle, light brown apple moth, Asian gypsy moth, sudden oak death, and oak wilt and well as data recording sheets.
- Illinois SSC will be responsible for purchasing supplies related to the pest survey.
- Illinois SSC will ensure all documents, forms, and reports are processed and filed according to schedule.

2. What resources are required to perform the work?

Survey and diagnostic guidelines, trapping supplies (including traps & lures, collection, and preservation equipment)

3. What numbers and types of personnel will be needed and what will they be doing?

- Kelly Estes (INHS, SSC) – is responsible for coordinating and completing all activities outline in this CAPS work plan. The SSC will coordinate survey activities, be responsible for trap screening, and ensure data entry, management, and quality.
- Summer Research Assistant (INHS) – assist with trapping and visual survey
- IDA representatives – assist with visual survey
- Greg Rentschler (USDA, PSS) – assist with survey coordination/site selection
- USDA identifiers – provide diagnostic support if suspect specimen found on traps.
- The SSC will act as liaison with the State PPQ office (including the SPHD and PSS) and the Illinois Department of Agriculture, the University of Illinois, and other cooperators in the development of exotic pest surveys and management plans.

4. What equipment will be needed to perform the work? Include major items of equipment with a value of \$5,000 or more. N/A

a. What equipment will be provided by the cooperator?

Microscopes for screening specimens, field and survey tools, insect pinning and curating equipment, insect storage cabinets

- b. What equipment will be provided by APHIS? none
- c. What equipment will be purchased in whole or in part with APHIS funds? N.A
- d. How will the equipment be used? N/A
- 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. All information technology supplies (e.g., small items of equipment, connectivity through air cards or high speed internet access, GPS units, radios for emergency operations etc.) should be specifically identified. Purchase of additional GPS unit for survey

6. What supplies will be needed to perform the work? Identify individual supplies with a cumulative value of \$5,000 or more as a separate item. **All information technology supplies (e.g., small items of equipment, connectivity through air cards or high speed internet access, GPS units, radios for emergency operations) should be specifically identified above.

- a. What supplies will be provided by the Cooperator?
Consumable office supplies include copying costs, diskettes, printer, and copier paper, ink cartridges, batteries, and other miscellaneous renewable materials and supplies will be provided.
- b. What supplies will be provided by APHIS? Pheromone lures for trapping survey
- c. What supplies will be purchased in whole or in part with APHIS funds?
Trapping supplies: lures, vaponal killing agents, replacement traps and stands, specimen collecting containers, alcohol, pins, and storage boxes.
- d. How will the supplies be used?
Supplies will be used in trap collection, specimen screening and preservation.
- e. What is the 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.) N/A

8. **What are the travel needs for the project?**

a. Is there any local travel to daily work sites? Who is the approving official? What are the methods of payment? Indicate rates and total costs in the Financial Plan.

Vehicles for use will be provided by the Cooperator. The Cooperator will provide for all operational costs of the vehicles. Travel will be required to sites to set up and take down traps.

b. What extended or overnight travel will be performed (number of trips, their purpose, and approximate dates). Who is the approving official? What is the method of payment? Indicate rates and total cost in the Financial Plan. none

9. **Reports:**

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

1. Narrative accomplishment reports in the frequency and time frame specified in the Notice of Award, Article 4.
2. Financial Status Reports, SF-269, 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?**

1. List Participating Agency/Institution:
University of Illinois Department of Crop Sciences
University of Illinois Department of Natural Resources and Environmental Sciences
Illinois Department of Agriculture
USDA-APHIS-PPQ

2. List all who will work on the project:
Kelly Estes, SSC
Greg Rentschler, PSS
Nancy Pataky, U of IL
Steve Knight, USDA
Mark Cinnamon, IDA
IDA representatives

3. Describe the nature of their effort:

The above mentioned individuals will provide guidance and assistance. The individual nature of their efforts will range from providing information to completing surveys.

4. Contribution:

Kelly Estes (INHS, SSC) – coordinate survey efforts, assist with survey, screen samples

Greg Rentschler (USDA, PSS) – provide information and guidance, survey coordination

Nancy Pataky (UI, Crop Sciences)– provide diagnostic assistance for plant pathogens

Steve Knight (USDA, SPHD) – provide information and guidance

Mark Cinnamon (IDA, SPRO) – provide information and guidance

IDA representatives – conduct visual surveys

Phil Nixon (UI, NRES) – provide diagnostic assistance

Jim Appleby (UI, NRES) – provide diagnostic assistance

C. APHIS Will:

- The SPHD and PSS will provide guidance and assist in the determination and prioritization of survey sites.
- Provide lures for the trapping part of the survey will be acquired through APHIS.
- PPQ Regional Identifiers will assist with confirmation of suspected target pest identifications.
- Funds will be provided to the Cooperator to cover the costs outlined in the financial plan. In addition, specific appropriated funding, in the level authorized by the APHIS Eastern Region, will be dedicated to the delivery of CAPS objectives listed above.
- The ADODR will track the Cooperative Agreement to ensure that all survey data are entered into NAPIS by the completion date of the Cooperative Agreement, or date agreed upon in work plan.

1. What equipment will be needed to perform the work? Include major items of equipment with a value of \$5,000 or more.

a. Will Equipment be loaned or provided by APHIS? Yes No
(If

Yes, please list:

b. How will the equipment be used?

IV) GEOGRAPHIC LOCATION OF PROJECT

- A.** Is the project statewide or in specific counties, townships, and/or national or state parks? (list all that apply)

Statewide survey to be conducted in state/national parks and landscape nurseries. In winter 2009, the state will be divided into 6 regions, within those regions, 5 areas will be selected for trapping.

- B.** What type of terrain (e.g., cropland, rangeland, woodland) will be involved in the project?
woodland, nursery
- C.** Are there any unusual features which may have an impact on the project or activity such as rivers, lakes, wild life sanctuaries, commercial beekeepers etc? (list all that apply) no
- D.** Identify the kind of data to be collected:
Data collected will be used to complete all NAPIS entry requirements including, but not limited to date, location, pest, positive or negative pest status, trap type, and duration of trap.
- E.** How will the data be maintained?
SSC Estes will maintain written and electronic records.
- F.** Establish criteria to evaluate the results and successes of the project:
- Pest detection surveys, outreach, and other project activities, are completed in the manner and time frame outlined in Section III.
 - All data collected from the pest detection surveys is entered into the NAPIS database in the timeframes outlined in Section V.
 - Maps of the pest detection survey activities are produced to aid in planning of future pest detection surveys, pathway risk analysis, and outreach activities
- G.** Methodology used to determine if the results and benefits are achieved:
- Review the NAPIS database to ensure that data from the pest detection activities has been entered.
 - Review the accomplishment reports, supporting outreach materials (if applicable), and maps.

V) DATA COLLECTION AND MAINTENANCE

- A.** All survey data from cooperative agreements involving pest surveys will be entered into the NAPIS database.
- a. First record for the State and/or County will be entered within **48 hours** of confirmation of identification by a qualified identifier.
 - b. All other required records, both positive and negative survey data, must be entered **within two weeks** of confirmation.
 - c. All records are to be entered into the NAPIS database by **December 1** of the year of survey, so these data can be included in the yearly Plant Board Report.