

## Cooperative Agricultural Pest Survey (CAPS) Work Plan for Calendar Year 2008

**Cooperator:** Connecticut Agricultural Experiment Station (CAES)  
**State:** Connecticut  
**Project:** Infrastructure

**Project Coordinator:** Rose Hiskes  
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### I) OBJECTIVES AND NEED FOR ASSISTANCE

A primary objective of the CAPS program is to safeguard our nation's food and environmental security from exotic pests that threaten our production and ecological systems. The purpose of the project is to build the infrastructure of The Connecticut Agricultural Experiment Station (CAES) and enhance communication networking among targeted stakeholders to support detection and response efforts for exotic pests, including insects, weeds, and pathogens. 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.

According to the 2002 Census of Agriculture, the market value of agricultural products sold in Connecticut totaled \$470.7M. These products include nursery crops, sod, cut Christmas trees, tobacco, vegetables, fruits, other crops and hay, milk, and dairy products. Infestations of exotic, introduced pests and the ensuing control efforts that must be undertaken for their control may negatively impact agricultural crops and pastures, resulting in severe economic losses for the state.

### II) RESULTS OR BENEFITS EXPECTED

The Cooperator seeks to conduct a cooperative agricultural pest survey program which is expected to result in:

A stronger CAPS program infrastructure which will enhance the ability of Connecticut and APHIS to conduct early detection and rapid response for new pests. Specific results expected from our 2008 program are:

- (1) One point of contact, the State Survey Coordinator (SSC), to coordinate and ensure that the CAPS program objectives are met.
- (2) Improved survey data collection and reporting through the use of ISIS or other electronic means of data collection.
- (3) A more comprehensive and updated Priority Pest List developed by the State Caps Committee (SCC) relative to the state of Connecticut and its major stakeholders.

- (4) Pest risk and pathway analysis conducted on all pests on the priority pest list to identify potential risk and survey locations for the state of Connecticut. This information will be utilized when selecting survey locations to help ensure early detection of exotic pests.
- (5) Improved outreach and risk communication about pests of concern and the CT CAPS program goals to citizens, foresters, the green industry, farmers and other producers, scientists, Integrated Pest Management personnel, Cooperative Extension Staff, and other stakeholders. We also expect to enhance our networking within the state through outreach.

### **III) APPROACH**

#### **A) The Cooperator and APHIS mutually agree to/that:**

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

#### **B) The Cooperator will:**

- i) Description of cooperator activities:  
The CAES will ensure that the following infrastructure requirements are met:
  - (1) **State Survey Coordinator (SSC)** The CAES will provide a SSC responsible for coordination of the state's CAPS program and the State CAPS Committee and to act as liaison with CT PPQ office. In addition, specific duties will include:
    - (a) Determine state training needs to further develop CAPS programs. Provide and/or assist in training.
    - (b) Coordinate actions of agencies involved in surveys through oversight of survey work-plans.
    - (c) Facilitate the cooperating agency's mechanism of distributing funds to other cooperating parties conducting surveys or other CAPS related programs.
    - (d) In conjunction with State Plant Health Director (SPHD) and the State CAPS Committee, will work with other state, county, and federal and public entities to create new and reinforce existing networks to evaluate risks, conduct surveys and manage cooperative pest programs.
    - (e) Rapid Response- Initial survey activities and contingency plans will be coordinated with the State Plant Regulatory Official (SPRO) and SPHD so that if an exotic pest or an invasive species is detected, a response can be quickly made to minimize disruption to our nation's food supply and plant resources.
    - (f) Networking which includes regular attendance by SSC or designated state representatives at state, regional, and national CAPS committees, meetings or conference calls.

- (2) **Data Management** State coordination of survey data collection and NAPIS database including:
- (a) NAPIS data entry and quality assurance of survey generated data.
  - (b) Enter new state records and new county records into the NAPIS database within 48 hours of confirmation of identification by a qualified identifier. Non-critical, redundant records must be entered in NAPIS within two weeks of confirmation of data quality.
  - (c) Survey maps and data collection will be conducted with GIS and GPS technology.
  - (d) Query NAPIS database for information.
  - (e) Encourage the use of Personal Data Assistants or hand-held data entry devices for gathering survey data using ISIS. The SSC will receive ISIS training and train surveyors and other personnel in its use. The SSC will be responsible for creating survey templates and managing the data in the ISIS database.
  - (f) Support other PPQ programs with NAPIS data entry upon request.
- (3) **Priority Pest List** The SSC, in conjunction with the CT CAPS committee, will work with other state, county and federal and public entities to create an invasive species list that is of concern to that state. The list will help focus Connecticut's survey and outreach priorities in coordination with other neighboring states in the region and across the nation. Specifically:
- (a) The list will consist of a minimum of twenty pests of most concern to Connecticut's agriculture or natural resources.
  - (b) Connecticut will select exotic pests from National, Regional, and historic pest lists.
  - (c) Connecticut will survey for pests with highest risk in their state.
- (4) **Pest Risk and Pathway Analysis** Using the Priority Pest List developed in #3 above, the SSC in conjunction with the Pest Survey Specialist (PSS) and State CAPS Committee will assess pest specific risk within Connecticut by examining existing pest risk assessments to determine possible pathways into the state. Specific work will include:
- (a) The SSC will gain access to the Global Pest and Disease Database and other available databases to accomplish risk assessment research. In addition, the SSC will work with the PSS to gather information from other PPQ AQI databases to gather relevant data to determine the pathways of entry into Connecticut.
  - (b) The SSC will also work with nursery inspectors to gather information about the state's nurseries relevant to the prevention of pest introduction into that industry.
  - (c) Analysis will be completed on all twenty pests on the priority pest list and the information will be stored electronically and in files for future survey efforts and for emergency response to a pest should it be found.
  - (d) Information gathered will include the specific risk pathways for the pest and locations of businesses or ports of entry that represent the pathway in the state. This will ensure that new introductions can be responded to quickly.
- (5) **Public Outreach and Risk Communication** Education and communication must be an integral part of the Connecticut CAPS program.
- (a) The SSC will be responsible for public outreach and risk communication with entities such as state and federal cooperators, university Cooperative Extension staff, agricultural industry representatives, the green industry, professional grower groups, master gardeners, and the general public.
  - (b) Fact sheets, educational material, and pest distribution maps for each identified pest on the Priority Pest List and the CT CAPS program will be developed, using existing materials where appropriate for distribution to the above groups.

- (c) Educational outreach will also occur through presentations at professional conferences, workshops, and other public events.
- (d) The SSC will ensure that the CAES website is updated with new pest information and the CAPS program documents including survey work plans, accomplishment reports, and committee meeting minutes.
- (e) The SSC will research new outreach opportunities to present information about the CT CAPS program and the pests of concern to the state. In 2008, a targeted outreach effort will be made to distribute information about the movement of exotic pests through firewood at parks, forests, and campgrounds. Success will be dependent upon the cooperation of CT DEP and private campground owners.

ii) Provide the following resources:

- (1) List types of personnel and what they will be doing.

Rose Hiskes, Diagnostician & Horticulturist, CAES, will serve as the State Survey Coordinator and ensure that all of the Core/Infrastructure goals are met. Specific duties have been outlined above.

Tia Blevins, Research Technician, CAES, will assist in NAPIS data entry and provide other support as needed.

- (a) All employees are currently employed by CAES.
- (b) No new employees will need to be hired.
- (c) All positions are paid positions.

- (2) Type of equipment provided by Cooperator for personnel.

- (a) Identify major equipment needs  
None
- (b) Use of the equipment purchased.  
N/A
- (c) Purchased with APHIS funds?  
N/A
- (d) Method of procurement.  
N/A
- (e) Method of disposition.  
N/A

- (3) Provide office space at 123 Huntington St., New Haven, CT, with associated services and utilities, computers and other office equipment for the use of Cooperator personnel in entering survey data into the NAPIS database.

- (4) Vehicles for Cooperator personnel in conducting field surveys and collecting data. The Cooperator will provide for all operational costs of the vehicles.

- (5) Supplies

- (a) Supplies for Infrastructure/Core work.  
computer and office supplies, digital camera supplies, laboratory supplies, reference materials, display board
- (b) Special supplies.  
N/A
- (c) Method of procurement.  
Materials are purchased through the approved system of state contract vendors. Purchases are made with a credit card billed directly to the appropriate account at CAES.

iii) Contracts

(1) Who will handle contractual needs?

Michael Last, Chief of Services of the CT Agricultural Experiment Station, will handle contractual and financial reporting needs. His office is located at 123 Huntington St., New Haven CT 06504; phone 203-974-8442, fax 203-974-8502; [Michael.Last@po.state.ct.us](mailto:Michael.Last@po.state.ct.us)

(2) Cooperator procurement activities shall be in accordance with A-102 and A-110.

(3) Special requirements

None

iv) Reports

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

(1) Narrative accomplishment reports (**Accomplish Report – Appendix H of the ER CAPS Guide**) 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.

v) Adhere to APHIS ADP security guidelines as referenced in the Notice of Award when entering pest survey data and transmitting it to NAPIS.

**C) APHIS will:**

i) Provide the following personnel:

(1) Patricia M. Douglass, State Plant Health Director, USDA APHIS will provide informational support and federal guidance.

(2) Nichole K. Campbell, Pest Survey Specialist, USDA APHIS will assist in developing CAPS pest survey protocols, pest risk analysis, and other related activities.

ii) Provide any new information that becomes available on pests of concern, provide appropriate forms, and review data.

iii) Provide the following resources: funds to the Cooperator to cover costs outlined in the financial plan. In addition, specific appropriated funding, in the level authorized by APHIS Eastern Region, will be dedicated to the delivery of CAPS objectives listed above.

iv) Make arrangements for taxonomic support in confirming identification of suspect exotic pests.

v) Produce maps of the survey activities with the location data (latitude and longitude) provided by the Cooperator, if the Cooperator does not have the necessary software or resources to produce maps.

vi) Provide training to SSC in use of ISIS database and contact information for NAPIS database so that training can be delivered by NAPIS staff to new SSC.

**D) Other parties who will work on the project:**

i) List participating agencies/institutions.

The University of Connecticut, through a Subcontract Agreement with The Connecticut Agricultural Experiment Station

ii) List all who will work on the project.

Donna Ellis, Extension Educator. Address: University of Connecticut, Department of Plant Science, 1390 Storrs Road, Unit 4163, Storrs, CT 06269; Telephone (860) 486-6448; email [donna.ellis@uconn.edu](mailto:donna.ellis@uconn.edu)

iii) Describe the nature of their effort.

Outreach and risk communication and pest risk and pathway analysis.

iv) Describe their specific contribution.

Donna Ellis will work with the Project Coordinator to provide outreach about pests of concern and the Connecticut CAPS program to citizens, foresters, the green industry, farmers and other producers, scientists, Integrated Pest Management, Master Gardeners and other Cooperative Extension personnel; and other stakeholders. Donna will also do pest risk and pathway analysis for the five invasive plants on the state pest list.

**IV) QUANTITATIVE PROJECTION OF ACCOMPLISHMENTS TO BE ACHIEVED**

January	Risk & pathway analysis, outreach & risk communication
February	Data management, Forest Health Meeting
March	Grower meetings, develop materials, State Caps committee meeting
April	Develop materials,
May	
June	Data entry
July	Data entry, outreach & risk communication
August	Data entry, outreach & risk communication
September	Data management, outreach & risk communication
October	Risk & pathway analysis, State Caps committee meeting
November	Risk & pathway analysis, outreach & risk communication
December	Risk & pathway analysis, outreach & risk communication

**V) DATA COLLECTION AND MAINTENANCE**

**A) Data management:**

The State Survey Coordinator has the responsibility for delivering tentative identification of targeted or other introduced pests to the State Plant Health Director and State Plant Regulatory Official, in accordance with the requirements listed below.

- i) All survey data from cooperative agreements involving pest surveys will be entered into the NAPIS database.
  - (1) First record for the State and/or County will be entered within **48 hours** of confirmation of identification by a qualified identifier.
  - (2) All other required records, both positive and negative survey data, must be entered **within two weeks** of confirmation.
  - (3) 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.
- ii) All appropriate PPQ data will be entered into NAPIS.
- iii) All appropriate data obtained by the CSREES network will be entered into NAPIS.
- iv) Exotic pest survey data from other sources (such as U.S. Forest Service, State Departments of Agriculture, and other qualified survey programs) will be entered into NAPIS as part of the Core project.

**B) Data to be collected:**

- i) Pathway Risk Analysis Data collected will consist of general pathway information for the introduction of each pest and specific locations within the state of CT that represent high risk entry locations. Information about specific locations will include: contact information (name, phone, email, etc.), location information (address and gps coordinates), identified risk information (reason location poses a risk of introduction of the pest)
- ii) Outreach data collected will consist of information relative to presentations made and information created and distributed. Where appropriate, a count of attendees will be collected at outreach events and reported in accomplishment reports.
- iii) Survey data collected will include presence/absence of pest, location information, contact information, survey date, and any other information required by the National Survey protocols or NAPIS database. ISIS will be used to collect all survey data if possible.
- iv) GPS technology will be used to collect location data, in decimal degree NAD 83 format, at all appropriate sites, specifically survey or high risk locations.
- v) GIS technology will be used to create maps of surveys, pest distributions within the state, and high risk pest introduction locations for future monitoring.

**C) Data maintained in:**

All data collected will be maintained both electronically and in files at the CAES. ISIS will store survey data if used. Ultimately, all survey data and exotic pest data will be stored in NAPIS.

**D) Criteria to evaluate the results and successes of the project:**

- i) Pest detection survey, outreach and other Core project activities, are completed in the manner and time frame outlined in Section III.
- ii) All data collected from the pest detection surveys is entered into the NAPIS database in the timeframes outlined in Section V.
- iii) Maps of the pest detection survey activities are produced to aid in planning of future pest detection surveys, pathway risk analysis, and outreach activities.

**E) Methodology used to determine if the results and benefits are achieved:**

- i) Review the NAPIS database to ensure that data from the pest detection activities has been entered.
- ii) Review the accomplishment reports, supporting outreach materials (if applicable), and maps.

**VI) GEOGRAPHIC LOCATION OF PROJECT**

Core/ Infrastructure duties will be conducted in all eight counties of Connecticut. Data will be provided to the Cooperator's State Regulatory Official (SPRO) for entry into the NAPIS database.

**A) Type of terrain:**

All areas of the state

**B) Features which may have an impact on the project or activity:**

None

**VII) TAXONOMIC SUPPORT**

**A) Person or Institution that will screen homeowner suspects:**

Gale Ridge, Rose Hiskes, Mary Inman  
 CAES, 123 Huntington St.  
 New Haven, CT 06504

Tom Rathier  
 CAES, 153 Cook Hill Rd.  
 Windsor, CT 06095

Rob Durgy  
 Home & Garden Education Center  
 University of Connecticut  
 Ratcliffe Hicks Building, Room 4,  
 1380 Storrs Road Unit 411,  
 Storrs, CT 06269-4115

Donna Ellis, contact  
 University of Connecticut Cooperative Extension  
 1390 Storrs Road, Unit 4163  
 Storrs, CT 06269

**B) CAPS Survey Collection Details:  
 Not Applicable for Core/Infrastructure**

Target Species	Survey Dates start – end	# Sites	# Traps or visual surveys per site	# Trap Services or Visits	Potential collections
<i>Scientific name</i>					
<i>Sites x Traps x Services = Potential Collections</i>					

### VIII) STATE PEST LIST

Rank	Scientific Name	Common Name	Pest Type
1	<i>Phytophthora ramorum</i>	Ramorum Blight	Disease
2	<i>Agilus planipennis</i>	Emerald Ash Borer	Insect
3	<i>Sirex noctilio</i>	Sirex Woodwasp	Insect
4	<i>Adoxophyes orana</i>	Summer Fruit Tortrix	Insect
5	<i>Archips fuscocupreanus</i>	Apple Tortrix	Insect
6	<i>Archips podana</i>	Fruit Tree Tortrix	Insect
7	<i>Tomicus piniperda</i>	Pine Shoot Beetle	Insect
8	<i>Aethina tumida</i>	Small Hive Beetle	Insect
9	<i>Pyrrhalta viburnii</i>	Viburnum Leaf Beetle	Insect
10	<i>Puccinia horiana</i>	Chrysanthemum White Rust	Disease
11	<i>Heracleum mantegazzianum</i>	Giant Hogweed	Weed
12	<i>Salvinia molesta</i>	Giant Salvinia	Weed
13	<i>Hydrilla verticillata</i>	Hydrilla	Weed
14	<i>Polygonum perfoliatum</i>	Mile-a-minute Vine	Weed
15	<i>Lythrum salicaria</i>	Purple Loosestrife	Weed
16	<i>Achatina fulica</i>	Giant African Snail	Mollusk
17	<i>Operophtera brumata</i>	Winter Moth	Insect
18	<i>Anoplophora glabripennis</i>	Asian Longhorned Beetle	Insect
19	<i>Palmicultor lumpurensis</i>	Bamboo Mealybug	Insect
20	<i>Epiphyas postvittana</i>	Little Brown Apple Moth	Insect

### IX) STATE COMMODITY LIST (TOP 6)

Rank	Commodity	Sales	Acres
1	Green Industry Crops (Nursery, Greenhouse, Floriculture, Sod)	\$470,000,000	35,000
2	Tobacco	\$36,233,000	2,430
3	Sweet Corn and Other Vegetables	\$19,120,000	10,691
4	Fruits, Tree Nuts, Berries (Apples ranked #1, Peaches#2)	\$14,721,000	2,600*
5	All Hay	\$19,153,000	63,000
6	Corn for silage; other field crops	520,000 tons	26,000

\*Apple and peach acreage

#### Sources:

- (1) [http://www.nass.usda.gov/Statistics\\_by\\_State/Ag\\_Overview/AgOverview\\_CT.pdf](http://www.nass.usda.gov/Statistics_by_State/Ag_Overview/AgOverview_CT.pdf)
- (2) [http://www.nass.usda.gov/census/census02/topcommodities/topcom\\_CT.htm](http://www.nass.usda.gov/census/census02/topcommodities/topcom_CT.htm) 2002 Census of Agriculture, Ranking of 2002 Market Value of Agricultural Products Sold
- (3) The Connecticut Green Industry & the Connecticut Economy, February 2003, University of Vermont and University of Maine.

**X) BUDGET/DETAILED FINANCIAL PLAN**  
**CT CAPS Infrastructure (01/01/2008 – 12/31/2008)**

Item/description	Calculation	Federal Funds	Cooperator Funds
<b>a) Personnel</b>	SSC at 0.5 FTE	\$ 24,068.00	\$ 0.00
	Technician at 0.2 FTE	\$ 11,528.00	\$ 0.00
	<b>Subtotal</b>	<b>\$ 35,596.00</b>	<b>\$ 0.00</b>
<b>b) Fringe</b>	52 % of salary for personnel	\$ 18,510.00	\$ 0.00
	<b>Subtotal</b>	<b>\$ 18,510.00</b>	<b>\$ 0.00</b>
<b>c) Travel</b>	Travel to CAPS meetings for SSC and SPRO	\$ 4,000.00	\$ 0.00
	<b>Subtotal</b>	<b>\$ 4,000.00</b>	<b>\$ 0.00</b>
<b>d) Equipment</b>		\$ 0.00	\$ 0.00
	<b>Subtotal</b>	<b>\$ 0.00</b>	<b>\$ 0.00</b>
<b>e) Supplies</b>	computer and office supplies, digital camera supplies, laboratory supplies, reference materials, display board	\$ 400.00	\$ 0.00
	<b>Subtotal</b>	<b>\$ 400.00</b>	<b>\$ 0.00</b>
<b>f) Contractual</b>	Donna Ellis (UConn) for outreach activities	\$ 14,847.00	\$ 0.00
	<b>Subtotal</b>	<b>\$ 14,847.00</b>	<b>\$ 0.00</b>
<b>g) Construction</b>		\$ 0.00	\$ 0.00
	<b>Subtotal</b>	<b>\$ 0.00</b>	<b>\$ 0.00</b>
<b>h) Other</b>		\$ 0.00	\$ 0.00
	<b>Subtotal</b>	<b>\$ 0.00</b>	<b>\$ 0.00</b>
<b>i) Total Direct Costs</b>		<b>\$ 73,353.00</b>	<b>\$ 0.00</b>
<b>j) Indirect Costs</b>	<b>32.72 % of salary</b>	<b>\$ 11,647.00</b>	<b>\$ 0.00</b>
<b>k) TOTAL</b>		<b>\$ 85,000.00</b>	<b>\$ 0.00</b>
<b>Cost Share Information</b>		<b>100%</b>	<b>0%</b>

**XI) SIGNATURES**

\_\_\_\_\_  
 State Plant Regulatory Official    Date

\_\_\_\_\_  
 ADODR    Date