Cooperative Agricultural Pest Survey
Annual Accomplishment Report FY 2008

State: Rhode Island **Year: 2008**
Agency: RI Department of Environmental Management, Division of Agriculture & Resource Marketing

I. Infrastructure Activities:

A. State Survey Coordinator:

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B. Member name, if applicable, of National CAPS Committee: N/A

C. Comparison of actual accomplishments to objectives established for the period.

1) State Survey Coordinator (SSC) RI DEM/Division of Agriculture & Resource Marketing 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.

The SSC continues to identify appropriate plant industry organizations as well as other applicable organizations throughout the state to provide information and outreach in relation to ongoing pest surveys. As a result of the discovery of the Asian Long horned beetle in Worchester, Ma, the SSC in coordination with the Division of Forestry mailed out information packages to Licensed Arborist, Licensed Commercial Pesticide Applicators and Landscape Companies, Firewood dealers and Nurseryman. The SSC continues to network with the Division of Forestry Environment staff and with their Forest Health Program on pest surveys and pest detections. . The CAPS program continues to maintain its cooperative working relationship with the University of Rhode Island, as it is vital to the successful protection of RI's economy and biodiversity.

The SSC participated in the following meetings and trainings:

1. New England ALB Strategy Meeting – Sept.24, 2008
2. Regional SSC Conference Calls-2008
3. DEM Asian Beetle Outreach Strategy Meeting – Oct. 8, 2008
4. USDA/APHIS CAPS Cooperative Agreement Training- April 2008
5. EPB Meeting- April 2008

6. National CAPS Meeting-December 2008
7. Forest Health Cooperators Meeting-October 22, 2008

As a result of the discovery of the Asian Longhorned Beetle in Worcester, MA and their ongoing infestation and detection survey and tree removal activities, the RI Caps office and the Division of Forestry were summoned to follow-up on two incidents where wood was suspected of being moved from the Worcester County quarantine area into Rhode Island. One incident involved a homeowner who resided in Worcester, suspected of moving cordwood/firewood into Rhode Island. It appeared the wood was moved to Rhode Island prior to discovery of Asian Longhorned beetle in Worcester. The wood was ultimately removed from the property in RI and chipped and burned by Div. of Agriculture and Div. of Forestry personnel. The other incident involved a RI tree company that was subcontracted by another RI tree company to remove trees in the quarantine area. The subcontractor transported logs mainly ash trees, to their processing facility into RI. A follow-up investigation was conducted by USDA APHIS investigator and accompanied by the SSC and Div. of Forestry staff. A " Notice of Stop, Sale, Use or Removal " was issued by the state of Rhode Island and arrangements were made for the tree company to transport the ash logs back to an approved tree disposal site within the Worcester county quarantine area.

2) Data Management State coordination of survey data collection and NAPIS database.

The SSC received training from the PSS (Pest Survey Specialist) on entering data for EAB and LBAM surveys into ISIS database.

All data for all surveys have been entered into NAPIS and as required data pertaining to the Emerald Ash Borer and the Light Brown Apple Moth Surveys has been entered into ISIS as well. SSC entered PPQ Pine Shoot Beetle survey data for the state of RI.

3) Priority Pest List. The SSC, in conjunction with the 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 survey and outreach priorities in coordination with other neighboring states in the region and across the nation.

During the State CAPS Committee meeting held on June 4, 2008, the RI CAPS committee discussed and finalized a priority pest list to focus our efforts for future pests surveys. In developing this list, the committee considered the major agricultural commodities produced within the state, as well agricultural production in neighboring states, identification of potential pathway risks and associated commercial and industrial sites that import from countries where these exotic pests are known. .

2008 & 2009 State Priority Pest List

Rank	Scientific Name	Common Name	Pest Type
1	*Phytophthora ramorum*	Ramorum Blight	Disease
2	*Agrilus planipennis*	Emerald Ash Borer	Insect
3	*Anoplophora glabripennis*	Asian Longhorned Beetle	Insect
4	*Tetropium fuscum*	Brown Spruce Longhorned Beetle	Insect
5	*Monochamus alternalis*	Japanese Pine Sawyer Beetle	Insect
6	*Ips sexdentatus*	Six tooth bark beetle	Insect
7	*Hylurgus ligruperlda*	Red-Haired bark Beetle	Insect
8	*Pityogenes chalcographus*	Spruce Engraver	Insect
9	*Sirex noctilio*	Sirex Woodwasp	Insect
10	*Epiphyas postvittana*	Light Brown Apple Moth	Insect
11	*Globodera pallida*	Potato Cyst nematode	Insect
12	*Ralstonia solanaceorum*	Bacterial Wilt of Potato	Disease
13	*Adoxophyes orana*	Summer fruit Tortix	Mollusk
14	*Lobesia botrana*	European Grape Vine Moth	Insect
15	*Archips xylosteanus*	Variegated golden moth tortix	Insect
16	*Eudocima fullonia*	Fruit piercing moth	Insect
17	*Potyvirus PPV*	Plum Pox Virus	Disease
18	*Tropilaelaps sp.*	Parasitic mites	acaricide
19	*Agriotes sp.*	Exotic Wireworm	Insect
20	*Copitarsia decolora*	No data available	Insect
21	*Puccinnia horiana*	Chrysanthemum White Rust	Disease
22	*Lymantria dispr asiatica*	Asian Gypsy Moth	Insect

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 the state by examining existing pest risk assessments to determine possible pathways into the state.**

The SSC gained access to the Global Pest & Disease Database and queried it for pest and pathway information.

In order to identify potential pathways and risks of Wood Boring bark beetle (WBBS) & Siricid wood wasps within the state, the Rhode island Department of Economic development was contacted and a copy of their Directory of Imports and Exports Facilities and Businesses was obtained to help identify and locate facilities that import from countries in which these pests are native species. In preparing for the Emerald Ash Borer Survey, the SSC contacted several cities and towns who had completed a street tree inventory to obtain information as to the location of Ash trees within their community. In addition, the State Division of Forestry and Parks Department was also contacted as to Ash Tree Stands located in forested or wooded areas within the state to assess potential pest risks pathways into the state. In preparing for the Light Brown Apple Moth Survey and the Chrysanthemum White Rust Survey, the SSC reviewed nursery stock purchase information maintained by the Supervisor of Plant Insect & Disease Program pertaining to Nursery Licenses. This information proved helpful in determining which nurseries buy their nursery stock out-of-state, especially from the western states where the pest risk is the greatest.

5) Public Outreach and Risk Communication Education and communication must be an integral part of the CAPS program.

The work plan calls for coordination with various state and federal cooperators, University Cooperative Extension Staff, Agricultural Industry Representatives, the Green Industry, Professional Grower Groups, Master Gardeners and the General Public in providing and organizing public outreach and communication regarding these pests. The SSC has met with members of the Master Gardner program at URI and presented information on the CAPS program, as well as the pest survey programs for 2008 and provided information about specific invasive pests of national concern. Also, as a result of the recent discovery of an Asian Long horned beetle infestation in Worchester, Ma, the SSC has submitted articles for the Rhode Island Landscape and Nurseryman Newsletter. A press release on the Asian Long horned beetle was also published in a major newspaper.

The SSC will continue to identify organizations and plant industry associations and provide outreach to groups that will benefit from the training on detection and monitoring of invasive exotic pests. Educational Material is always provided during site visits, when seeking out survey sites. Pest Alert Fact Sheets are also posted on the DEM/Division of Agricultural home page, which is accessible to the public. The SSC continues to identify any industry workshops or training sessions pertinent to the CAPS program and make every attempt to have educational material available or participate in the event. In summary, the SSC attended and participated in the following meetings and conferences to enhance the RI CAPS program through education and networking, the focus of some of these meetings a result of the discovery of the Asian Longhorned beetle infestation in Worcester, MA, in August 2008.

1. The Rhode Island Flower Show - February 21 – 24, 2008
2. URI Master Gardeners Session – August 5, 2008
3. Washington County Fair – August 20 – 23, 2008

In cooperation with the RI Tree Council, four training workshops were conducted throughout the state to provide outreach and training for municipal public works employees, commercial tree companies and landscape companies in the identification and signs of damage related to the Asian Longhorned Beetle. The objective of these meetings is to inform municipals employees who work in parks, recreational and forested areas about ALB threat and what they should do if they suspect any evidence of the insect or appropriate damage. The training session were held at the following locations:

1. Nov. 18, 2008 – George Washington Management Area- Providence County
2. Nov. 20, 2008 – Warwick Public Library – Kent & Prov. Counties
3. Dec.4, 2008 – Jamestown Public Library – Newport & Bristol Counties
4. Dec. 9, 2008 – Richmond Senior Center – Washington County

Informational and training packets were provided to each attendee.

D. Objectives Not Met:

1.Development of a separate RI CAPS website was not completed. Plans to develop a CAPS web page are still under discussion and are ongoing.
2.Staff presence at RI Farmers Markets and Harvest fairs to promote CAPS were not met for this workplan.
3) Due to staffing resources, Pathway & Risk analysis was not completed on all of the top priority pests. This project will take more time than originally anticipated. Further research and work needs to be done to identify risk locations within the state. All other objectives were met for this workplan.

E. Cost Overruns.
No cost overruns

F. State CAPS Committee Narrative:

Two meetings were held regarding CAPS work plans and surveys. The State Caps Committee was held on June 4, 2008. The focus of the discussion was development of the 2009 State Pest Priority List and discussion on the 2009 surveys and work plans. In addition, status of the 2008 surveys was also discussed. A second meeting was held on November 14, 2008, for the purpose of discussing the 2008 survey season and results, as well as the 2009 work plans. The following State CAPS Committee were in attendance at the November 14, meeting: Liz Lopes-Duguay, SSC; Ken Ayars, Div. if Agriculture, Chief/SPRO; Matt Green, Div. of Agr/Nursery Section; Patty Douglass, USDA-APHIS-PPQ, SPUD, Nichole Campbell, USDA-APHIS-PPQ/PSS, Lisa Tewksbury, Univ. of Rhode Island /Plant Pathology, Entomology. Gene Pepper, Acting Deputy Chief, Div. of Agriculture also attended this meeting. Discussion on providing additional training on ISIS data entry and utilizing electronic devices such as PDA's for tracking surveys was also discussed. Time will be scheduled to provide ISIS training to the SSC

State Survey Committee members

Name	Organization	Discipline
Patricia Douglass	USDA-APHIS-PPQ	Regulatory
Nicole Campbell	USDA-APHIS_PPQ	Regulatory
Cathy Sparks	RIDEM-Div. Of Forest Environment	Forest Health
Sue Sosnowski	RIDEM-Agricultural Advisory Council	Horticulture
Al Bettencourt	RI Farm Bureau	Farm Services
Steve Cotta	RI Nurseryman's Association	Horticulture/Entomology
Ken Ayars	RIDEM-Div. Of Agriculture	State Regulatory
Liz Lopes-Duguay	RIDEM-Div. Of Agriculture	State Regulatory-SSC
Heather Faubert	Univ. of Rhode Island	Plant Pathology/Entomology
Alan Hill	RI Fruit Growers Association	Horticulture/Entomology
R.Matthew Green	RIDEM-Div. Of Agriculture	Sup. Plant Insect & Disease Control

G. NAPIS database submissions: CAPS program pest and date of submission

Target Pest	Date(s) of NAPIS submission
epiphyas postvittana *(Light Brown Apple Moth)*	November 26, 2008
Sirex Noctillio (European Woodwasp)	November 26, 2008
Agrilus planipennis (Emerald Ash Borer)	November 26, 2008
Puccinia horiana (Chrysanthemum White Rust)	November 26, 2008
Wood Boring /Bark Beetle	
Monochamus alternatus *(Japenese Pine Sawyer Beetle)*	November 26, 2008
Hylurgus ligniperda *(Redhaired pine bark beetle)*	November 26, 2008
Hylurgops palliates *(a bark beetle)*	November 26, 2008
Ips typographus *(Spruce bark beetle)*	November 26, 2008
Ips sexdentatus *(Sixtoothed bark beetle)*	November 26, 2008
Trypodendron domesticum	November 26, 2008
Pityogenes chalcographus *(sixtoothes spruce beetle)*	November 26, 2008
Tomicus destruens *(Pine Shoot Beetle)*	
Orthotomicus erosus (Ips erosus) *(Mediterranean Pine Sawyer)*	November 26, 2008

II. CAPS survey activity (Part II & Part III (Additional EPP funding))

Part II: Exotic Wood Borer Bark Beetle Survey

A. Survey Methodology (trapping protocol)

Eleven sites were established throughout RI for the WBBB and Siricid Surveys.

Trapping for bark beetles began on April 14 and ended on October 28, 2008. . For WBBB, three eight tier Lingren Funnel traps were deployed at each location for a total of 33 traps. Traps were baited with three different combinations of lures including alpha-pinene, ethanol UHR and an IPS SP lure. Surveys were conducted in Washington, Kent and Providence Counties
Trapping for Siricids began on June 3, 2008 and ended on October 28, 2008 For the Siricids, eleven-8 tiered Lingren funnel traps will be baited with 70/30 combination Alpha-Pinene/beta-pinene lures according to protocol and placed at the 11 sites associated with the WBBBW survey and sawmill locations. All traps were monitored on a biweekly basis throughout the survey. Pest Alerts were distributed to all participants of the survey.

B. Rational underlying survey methodology

The survey methodology being used is part of the national WBB protocol. We chose the different lure combinations to increase the number of different targets that we could attract to our traps.

C. Survey Dates

The WBBB survey began on April 14 and ended on October 28, 2008. . The Sirex survey began on May 28, 2008 and ended on October 28, 2008.

D. Taxonomic Services

Wood Boring/Bark Beetles

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Exotic Siricids

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E. Benefits and Results of Survey

WBB samples were sent to Carnegie Museum of Natural History for identification and were reported as negative for targets. Sirex samples were sent to the URI lab and all were negative for sirex noctillio

Survey results will contribute data on the distribution and range of WB/BBs and exotic wood wasps in the state of Rhode Island. In addition, USDA, APHIS and DEM will be provided with a greater understanding of the pathways by which pests might be introduced into the state. This information can be utilized by state and federal-level decision makers involved with the control and quarantine of pests within the US.

F. NAPIS database submissions:

See previous table. Data was entered into NAPIS on November 26, 2008.

Part II: Light Brown Apple Moth Nursery Survey

A. Survey Methodology (trapping protocol)

Rhode Island initially submitted a workplan that identified ten sites to be surveyed throughout the state. However, additional funding was made available from USDA and a total of 25 sites were surveyed. Trapping for LBAM began on July 15, 2008 and ended on October 17, 2008. Selected sites include RI's highest risk nurseries, abandoned orchards and retail garden centers in Providence, Washington, Newport, Kent and Bristol counties. Nurseries were chosen according to the origin of their stock. Those nurseries that receive stock from high-risk areas in California were targeted for this survey**.** Two Jackson Traps equipped with species pheromone lures were deployed at each site. Traps were monitored approximately every three to four weeks.

B. Rationale underlying survey methodology

This survey is being conducted as per the national protocol.. Trap monitoring was not consistent with protocol due to staffing issues.

C. Survey dates

July 15, 2008 – October 17, 2008.

D. Taxonomic services

Elizabeth M. Lopes-Duguay will screen targets.
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E. Benefits and results of survey

No suspect LBAM finds in 2008.

The ultimate benefit of this survey is to ascertain whether Light Brown Apple Moth (LBAM) is currently a potential threat to RI's agriculture and natural lands by detecting the presence or absence of the pest determine whether the pest is present in the state. Early detection of this pest and distributional data will aid RIDEM and APHIS in making regulatory decisions to eradicate or manage this pest should it be found**. Pest Alerts were distributed to all participants of the survey. In addition, informational packets were provided to the RI fruit growers association at one of their meetings held in April.**

NAPIS database submissions:

Epiphyas postvittana	**November 26, 2008**	

Part III: Chrysanthemum White Rust Survey

A. Survey Methodology (trapping protocol)

Visual surveys of Chrysanthemum plants for signs of CWR were conducted at greenhouses, garden centers and commercial growers. This survey began on August 25th and was completed on September 23, 2008. Twenty sites (20) were surveyed. Surveys were conducted at nursery sites and garden centers in Providence, Washington, Newport and Kent counties.

B. Rationale underlying survey methodology

A visual survey for symptoms of this disease by trained nursery inspectors is a valid and effective method of survey. All visually suspect material was confirmed via lab testing.

C. Survey dates

This survey began on August 25, 2008 and completed on September 23, 2008..

D. Taxonomic services

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E. Benefits and results of survey

Though no evidence of CWR was observed at any of these sites, the state did receive a request for a trace forward follow-up from USDA. A homeowner residing in Newport, RI contacted the Massachusetts website of a potential suspect. The homeowner purchased the plants the previous year. A sample was collected and delivered to URI for diagnosis and was later forwarded to PPQ for confirmation. USDA also collected a follow-up sample and CWR was confirmed. USDA personnel then removed plants from the site. Pest Alerts were provided to each participant of the survey.

The primary benefits of this survey will be to ascertain whether CWR is presently infesting Rhode Island's Nursery trade and to increase public/industry awareness. Data collected from inspections of greenhouses, garden centers and other commercial growers will aid Federal and State level decision makers in their efforts to control this economically damaging fungus.

F. NAPIS database submissions:

Puccinia horiana	November 26, 2008

Part III: Emerald Ash Borer

A. Survey Methodology (trapping protocol)

Rhode Island initially submitted a workplan that the survey would cover 10 sites within the state. However, additional funding became available and Rhode Island surveyed twenty sites within the state. Rhode Island followed the National Ash Borer survey protocol, whereby emphasis on targeting sites and locations were areas having declining ash trees. If none were present, then site selections considered would include nurseries, sawmills, firewood dealers, campgrounds and municipal streets and parks. Nurseries will be chosen according to the origin of their stock. Those that receive nursery stock from the highest risk states such as Michigan, Illinois, etc will be targeted in this survey. Traps were set beginning on June 15, 2008 and the survey was completed on October 16, 2008. One to Two purple prism traps equipped with specific pheromone lures will be deployed at each site depending on risk and size of the targeted site. Traps were checked at least once a month. In addition, visual surveys will be conducted within close proximately to traps for signs of EAB. Pest Alerts were provided to all participants of the survey. In addition, pest alerts were also provided to other campsites visited by the CAPS staff during the season.

B. Rational underlying survey method

The survey methodology is according to the national protocol for this pest.

C. Survey Dates

The survey began on June 15, 2008 and ended on October 16, 2008.

D. Taxonomic Services

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E, Benefits and Results of Survey

No suspects were found during this survey. All data was entered into ISIS and NAPIS databases.

The primary benefits of this survey will be to ascertain whether EAB is currently a potential threat to RI's Nursery Trade as well as the natural and landscaped lands by detecting the presence or absence of the pest.

F. NAPIS Database Submissions:

Agrilus planipennis	**November 26, 2008**

Approved and signed by:

_____ Date: _____

Cooperator

_____ Date: _____

ADODR