

**Cooperative Agricultural Pest Survey (CAPS)
2009 National Survey Guidelines
April 18, 2008**

PREAMBLE

The CAPS Program Guidebook, August 11, 2003, was completely revised for 2008 upon consideration of the recommendations of the 1999 Safeguarding Review, the 2006 National Plant Board (NPB) CAPS Advisory Group, and the National CAPS Committee (NCC). The 2008 guidelines provided a new mission statement for CAPS, which was developed by the NPB CAPS Advisory Group and endorsed by the NCC and the Plant Protection and Quarantine (PPQ) Executive Team. Further changes were made for 2009:

- improved guidance for funding CAPS surveys;
- flexibility for States to choose plant pests for survey such as commodity-based partnerships with industry;
- guidance to leverage CAPS funds for outreach;
- guidance on taxonomic services and procedures;
- guidance for collecting and reporting negative data;
- guidance on use of the NAPIS Data Entry Worksheet;
- guidance for EWB/BB trap and lure negative data entry;
- new work plan submission templates
- a new Excel spreadsheet to submit proposed surveys and pests;
- new lists of pests of national concern and additional pests of regulatory concern;
- guidance for cooperators to use when deciding upon pests to survey for in each State; and
- a request of the SPHD to provide a short written evaluation of a State's performance along with the State's final report.

If you have any concern or suggestions to improve the CAPS program, please contact the National Survey Coordinator, Dr. John Bowers at Area Code (301) 734-3769, by email at John.Bowers@aphis.usda.gov, or by correspondence at USDA-APHIS-PPQ, Emergency and Domestic Programs, 4700 River Road, Unit 134, Riverdale, MD 20737, or email the Director of the Pest Detection Program, Dr. Matt Royer, at Matthew.H.Royer@aphis.usda.gov, or contact the Regional CAPS Coordinators- Dr. Brian Kopper (Eastern Region) by email at Brian.J.Kopper@aphis.usda.gov, or Kristian Rondeau (Western Region) by email at Kristian.C.Rondeau@aphis.usda.gov.

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INTRODUCTION

The purpose of these guidelines is to provide direction for the Cooperative Agricultural Pest Survey (CAPS) program. These guidelines are written for State Departments of Agriculture, tribal governments, and Plant Protection and Quarantine (PPQ) personnel and collaborators. These guidelines provide a general overview of the CAPS program. Specific details concerning current or yearly survey activities may be obtained from the Director of the Pest Detection Program, the National Survey Coordinator, PPQ Eastern or Western Regional Survey Coordinators, or PPQ State Plant Health Directors.

MISSION

The mission of the Cooperative Agricultural Pest Survey (CAPS) program is to provide a distribution profile of plant pests in the United States deemed to be of regulatory significance* to USDA-APHIS-PPQ, State Departments of Agriculture, tribal governments, and cooperators by:

- Confirming the presence or absence of plant pests impacting the domestic and international movement of plants and plant products; and
- Establishing and maintaining a comprehensive network of cooperators and stakeholders to facilitate our mission and to safeguard our American plant resources.

**The term “regulatory significance” is defined in Appendix A.*

ROLES AND RESPONSIBILITIES

Central to the success of the CAPS program is clarity about the roles and responsibilities of all parties involved in cooperative surveys. While the focus is primarily on state cooperators, it also extends to universities, tribal governments, and, potentially, to industry partners, non-traditional parties (i.e., environmental groups), and other organizations concerned about the threat of introduced invasive pest species. Appendices B and C list the roles and responsibilities of the State Plant Health Director (SPHD), State Plant Regulatory Official (SPRO), Pest Survey Specialist (PSS), and State Survey Coordinator (SSC) positions within the CAPS program.

At both the national and state-levels, an organized effort to engage industry early in the survey-planning process is required. This is necessary because the CAPS program will continue to shift its strategy from being “pest-specific”, to surveying for several pests on a “commodity” basis, with a few exceptions.

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The hosts and commodities impacted by pests span PPQ's Eastern and Western Regions, and it is appropriate to address the risks from an agroecosystem perspective. APHIS believes the commodity/ecosystem approach will provide a holistic framework for prevention, preparedness, response, and recovery from invasive pests of regulatory significance. APHIS realizes the value of engaging stakeholders throughout this continuum, especially when communicating about pest risks, jointly setting survey priorities, and leveraging resources across organizational boundaries. It is imperative that the State and National CAPS Committees communicate the goals and objectives of the CAPS program. Open dialogue at the national and state level with industry and other stakeholders is of vital importance for the success of CAPS. In order to facilitate this dialogue, PPQ has provided a ranking of pest threats in the form of a prioritized list (Appendix D), guidance on taxonomic support (Appendix E), and guidance on selecting which pests to survey, given the hosts, climate, and other factors unique to each State (see the NCSU-APHIS Plant Pest Forecasting System (NAPPFASST) website, online at [link not available]).

The National CAPS Committee (NCC) will provide the strategy for identifying pests of "national priority", as well as "state-level" discretionary pest surveys. The NCC will revise the National Guidelines when annually reviewing the policy, strategy, and performance of the CAPS program. The NCC By Laws contain more information about the NCC and the roles and responsibilities of the SPHD, SPRO, PSS, and SSC within the CAPS program (Appendix F).

The National CAPS Committee will approve annually a list of specific "Pests of National Concern" (Appendix G) based on input by PPQ, the States, the Center for Plant Health Science and Technology (CPHST) (i.e. pest ranking, feasibility of survey, and pest identification), and commodity organizations. States will select from this list to complete the National Survey portion of CAPS.

The NCC also will approve annually a list of "Additional Pests of Regulatory Concern" (Appendix H). The State CAPS Committee will determine and recommend survey priorities for pests of State regulatory concern in their state using this list as a guide. Because the emphasis of the CAPS program generally is moving towards a commodity basis, PPQ will be encouraging and approving an increasing number of industry-state partnerships for pest survey.

The National Survey Coordinator (NSC) will provide overall direction for the CAPS program. The NSC is responsible for the Cooperative Agreement with Purdue University, which provides the administrative and financial framework for the National Agriculture Pest Information System (NAPIS) database and related websites.

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The NSC is also the chairperson of the NCC. The NSC, with input from the NCC and the National Plant Board (NPB), sets plant pest detection priorities and implements survey and detection activities in the United States. The NSC also coordinates communication between the NCC, PPQ Regional Survey Coordinators (RSC), and NPB on prioritizing pest survey needs, providing information on pest risk, managing the allocation of pest detection funds and resources, and formulating a pest list for future surveys.

The NSC also participates in the annual budget formulation and ensures survey technologies are identified for use by the CAPS community. The NSC has nationwide responsibility to coordinate activities of CAPS through the RSCs and to ensure that NAPIS meets the needs of CAPS. The NSC is responsible for ensuring that CAPS is included in the planning and implementation of national PPQ programs, and also is responsible for the tracking the performance of the CAPS program.

The Eastern and Western Regional Survey Coordinators (RSCs) will be responsible for reviewing State performance, and are accountable for the *administration* of the CAPS program at the PPQ Regional level. The PPQ Regions supervise the SPHDs, who fiscally and programmatically are accountable for periodic and final CAPS reports. The RSCs communicate programmatic issues to the States through the SPHDs, who ensure fiscal and programmatic accountability by reviewing periodic and year-end reports.

The SPHD and SPRO, in consultation with the SSC and PSS and considering the recommendations and advice of the State CAPS Committee, are responsible for the selection of pests that are important to their State. This collaboration will allow flexibility on a state-by-state basis. In order to provide this flexibility, performance measures must be in place early in the planning process so that there is cooperator accountability where Federal funds are provided. These performance measures will enable the assessment of accomplishments made toward pest selection and survey objectives outlined in CAPS cooperative agreements. A summary of activities performed by SSCs that resulted in advancing the overall programs effectiveness will support this assessment process.

The SSC, in collaboration with the PSS, will make use of pest risk information from various sources. Such sources include pest data sheets; pest risk assessments; NAPPFast; pests ranked through the Analytic Hierarchy Process, as conducted by CPHST (Appendix D); “risk zones” and other information communicated to the SPHDs by the RSCs; pests that need to be surveyed per the PPQ Executive Team’s endorsement of recommendations of the PPQ New Pest Advisory Group; industries’ suggestions for coordinated survey/monitoring of pests of mutual concern; changes in patterns of risk or commerce that indicate domestic survey is merited along a risky pest pathway; PPQ-regulated “domestic/emergency program pests”, whenever a PPQ national program coordinator indicates that there is inadequate survey funds to meet national objectives; and select agents that present some threat for potential bioterrorism.

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FUNDING & WORK PLANS

PPQ intends to allocate funds to each State in a fair and transparent manner. Each State needs to be able to predict the minimal level of Federal funding it will receive from year-to-year in order to plan surveys and acquire/retain a resource base. Therefore, PPQ intends and strives to fund each State at a level commensurate with need. However, the CAPS program needs to be sufficiently flexible to address national priorities that may have shifted since pests were first being considered for survey due to new pests that may have been found, or specific direction APHIS may have received in the federal funding appropriations.

Funds to support CAPS are generally provided to State Departments of Agriculture and other cooperators through cooperative agreements, which are administered through the PPQ Regional offices. The annual PPQ Pest Detection "line item" appropriation is the major funding source for CAPS. However, funds from the Pest Detection line item may also be used, in some cases, when programmatic survey activities are inadequately funded through other funding sources and are unable to achieve program objectives. This is particularly true when pests are found that are new to the United States or are found in new areas of the country and PPQ Regional office funds, APHIS Contingency funds, Commodity Credit Corporation funds, or normally appropriated PPQ Emerging Plant Pest funds are inadequate.

The funding allocation process is linked to justifications from each State for: (I) infrastructure, (II) surveys to address pests of national concern, and (III) surveys to address pests of state concern.

I. Infrastructure

Tier 1

These base-level funds are provided to each state to support the State Survey Coordinator (SSC), and are capped at \$100,000. The funds are to be used to cover expenses related to salary; benefits/fringe; standard support equipment (including but not limited to: desktop computer, laptop computer, audio-visual equipment, cell phone, etc.); in-state travel (cooperator/industry meetings, outreach, etc.); out of state CAPS related travel (e.g. National CAPS meeting, etc.); and departmental overhead typical for this position. Survey is not allowed in Infrastructure funding.

Tier 2

Base-level funds may be supplemented up to 50 percent above the Tier 1 level, **provided that the justification is sufficient**. Examples of a justifiable increase include:

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- When there is a demonstrated need for data management support, which may include part-time salary/benefits for a data management position and associated standard support equipment;
- When additional outreach beyond Tier 1 funding levels is merited. Outreach should enhance survey and pest detection efforts, and should be linked to an active survey effort in the State in a manner that enhances the CAPS program (see Appendix I for a more detailed explanation of fundable outreach programs) ; and
- When States have very high cost-of-living expenses and other high overhead expenses. States with higher cost of living expenses could be eligible for this increase if the need is clearly justified by the State cooperative agreements officer, the need is confirmed by the APHIS cooperative agreements officer, and the need is supported by known locality costs as determined by the Federal Government's pay schedules.

Note: maximum possible Infrastructure award: \$150,000. Written work plans for specific surveys must be provided (see next section). Infrastructure costs will be addressed during the formulation of the total budget for each State.

II. Surveys of National Concern

Surveys of National Concern are those survey initiatives that have been identified by the National CAPS Committee as being of high priority to merit a national survey effort (see Appendix G for the Pests of National Concern list). **The CAPS program is a national program, and as such, the primary focus is on national surveys.** The focus of these surveys is on detecting pests in areas where their presence (or absence) is unknown. The intent of commodity-based surveys is to detect pests not known to be present in those areas of the nation where a particular commodity is grown. A goal of the CAPS program is to conduct national surveys and obtain a national dataset for exotic pests in commodities of national importance. Current emergency pest programs, or other pest programs for which survey funds are inadequate, may be appropriately included if approved by the National CAPS Committee, and are listed below. However, these surveys are not intended to intensively delimit the extent of spread of a pest around a specific infestation site. The following examples are appropriate for conducting a national survey, and may be approved at full funding levels.

- Commodity-based surveys* (Citrus, Soybean, Oak, Grape, Small Grains, and Pine);
- Exotic Wood Borer/Bark Beetle (EWB/BB) survey*;
- Plum Pox Virus (PPV);
- *Phytophthora ramorum*;
- Nematodes of regulatory concern*;

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* Not all pests listed in a commodity-based, EWB/BB, or nematode survey need be targeted by an individual State. Target only those pests that are important to the State. Selecting a portion of the pests listed in a commodity-based survey guide fulfills the requirement of conducting that commodity-based survey.

States are eligible for 75 to 100 percent of their survey dollars to support these pests. Further guidance for determining eligibility and amount available to each State will be determined by the National CAPS Committee, with allocation decisions coordinated among the National Survey Coordinator and Regional Survey Coordinators, in consultation with the SPHD and SPRO.

III. Surveys of State Regulatory Concern

Surveys of State Regulatory Concern are surveys that a State may choose to conduct for pests of regulatory significance within their State (see Appendix H for the Additional Pests of Regulatory Concern list). **Justification must be provided identifying why these surveys and pests are of concern to the State.** The State also assures that local/county survey needs are adequately addressed regarding pests of State concern.

Examples of these pests include:

- Any of the pests listed in the Analytic Hierarchy Process (AHP) prioritized pest lists that are provided each year when setting survey priorities;
- Pest of phytosanitary significance in interstate commerce;
- Pests of phytosanitary significance for exports;
- Offshore Pest Information System (OPIS) reported pests;
- Industry partnerships for specific commodities; and
- Pests that otherwise are under “official control.” A process currently is being considered whereby APHIS may recognize the latter category of pests but it is not yet available at the time these guidelines were prepared. When no Federal pest quarantine regulations are in place, States should try to be consistent in how they carry out pest management measures. Conversely, where Federal requirements are in place, States should have consistent intrastate regulations prepared;

States are eligible for up to 25 percent of their survey dollars to support surveys for pests of State regulatory concern (where the other 75 percent would be used to survey for pests of national concern).

Overall Funding Formula

*Infrastructure + Surveys of National Concern (minimum of 75 percent of survey dollars)
+ Surveys of State Concern (up to 25 percent of survey dollars) = total funds awarded.*

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Funding for the CAPS program is provided by Congress through the Pest Detection line item in the Federal Budget. Pest Detection also funds several other initiatives in support of the CAPS program. Due to Presidential and Congressional priorities, as well as the budget cycle, funds available for the next survey year are not known at the time these guidelines are published. For fiscal year (FY) 2009, we will use FY 2008 totals as a general rule-of-thumb, with a few exceptions. Examples of this formula are as follows:

Examples:

State 1:

\$100,000	Tier 1 Infrastructure
\$50,000	Available for survey based on previous year's budget
\$37,500	Surveys of National Concern (75percent of \$50,000)
\$12,500	Surveys of State Regulatory Concern (25 percent of \$50,000)
\$150,000	Total cooperative agreement

State 2:

\$100,000	Tier 1 Infrastructure
\$25,000	Tier 2 Infrastructure
\$75,000	Available for survey based on previous year's budget
\$56,250	Surveys of National Concern (75 percent of \$75,000)
\$18,750	Surveys of State Regulatory Concern (25 percent of \$75,000)
\$200,000	Total cooperative agreement

State 3:

\$100,000	Tier 1 Infrastructure
\$50,000	Tier 2 Infrastructure
\$250,000	Available for survey based on previous year's budget
\$187,500	Surveys of National Concern (75 percent of \$250,000)
\$62,500	Surveys of State Regulatory Concern (25 percent of \$250,000)
\$400,000	Total cooperative agreement

Work Plan Submission

Each state should submit work plans, including detailed financial plans, for the Infrastructure project and each survey they plan to conduct. The survey work plans should be distinguished by Surveys of National Concern or Survey of State Concern. Templates for Infrastructure and Survey can be found in Appendix J. The combined total requested should not exceed the guidance given by the RSC. For 2009, States are asked also to submit an Excel spreadsheet with the list of surveys and pests proposed in the work plans. The format also can be found in Appendix J. Downloadable files will be available on the CAPS website.

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ADMINISTRATIVE REQUIREMENTS

All cooperative agreements are administered through the PPQ Regions, and are the means by which funds are provided to each State and cooperator. APHIS is exploring how it may streamline cooperative agreements, including online electronic forms or other means of expediting the submission of information from potential cooperators, and reporting results. A single system is not yet available at the time these guidelines were prepared; however, electronic forms may be used and submitted per the guidance of the PPQ Regions and provided herein.

As required by OMB Circular A102 and 7CFR 3016, a final Annual Financial Status Report (SF-269) and a narrative Accomplishment Report must be submitted within 90 days after an annual Cooperative Agreement (funding period) expires. An extension may be granted if requested by the cooperator, supported by the SPHD and APHIS cooperative agreements officer, and approved by the Regional Director. The SPHD may request semiannual or quarterly reports which, if requested, are due within 30 days of the end of the reporting period.

The SPHD, as ADODR of the cooperative agreement, submits the State's annual report to the Region no later than March 31 (90 days after the cooperative agreement expires). At the same time that the State's annual report is submitted, the SPHD must submit a written evaluation of the State's performance to the SSC, and copied to the NSC and RSC. The evaluation should include input from the PSS, and address each funded project in the cooperative agreement. The evaluation depends upon the work plan and must address the funding criteria previously agreed to by the State and the SPHD, and the performance of the State in carrying out the cooperative agreement. A work plan monitoring tool is in development, and will be made available to the SPHDs when ready to assist in the review of the State's performance.

By February 1 of each year, the regional offices will submit a CAPS Agreement Allocation Review for the current year to the NSC. The report will be listed by State and include the names for proposed projects, including surveys and target pests, approved projects, amount of funds requested by project, amount of funds approved by project, and the total allocations by project for the previous year.

The overall annual process involved in conducting effective CAPS activities is lengthy. It includes identifying pest threats; ranking pest risks; engaging scientists and stakeholders to determine the merits of survey to determine a pests status in the United States; allocating funds for surveys at the State level and for special projects; conducting surveys; analyzing the data collected; writing periodic/annual reports; and evaluating the accomplishment of survey and CAPS program annual objectives. A planning calendar is provided in this document, showing significant milestones including administrative deadlines (Appendix K).

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DATA MANAGEMENT

All survey data from Federal cooperative agreements involving pest surveys will be entered into the National Agriculture Pest Information System (NAPIS). NAPIS is the APHIS-PPQ approved repository for all survey data in the CAPS program. The SPHD, or his/her designee, is responsible for assuring data quality. The PSS also reviews the data for quality, and brings discrepancies to the attention of the SSC and/or SPRO and SPHD.

Each State is responsible for entering complete, accurate, and timely pest survey data into NAPIS using approved protocol. CAPS funds may be used to purchase and maintain the required equipment to ensure this occurs. The data entry requirements are:

- Enter new national, state, and county records into NAPIS database within 48 hours of confirmation of a pest or pathogen identification by a recognized identifier;
- Non-time sensitive records, including negative data, must be entered into NAPIS within 2 weeks of confirmation;
- Negative data should be entered within 2 weeks of decommissioning a trap, obtaining the results from an identifier, or performing a laboratory assay (**It is not appropriate to wait until the end of the year to enter data**);
- Survey data will be collected with GPS technology for internal pathway analyses; and
- Survey maps will be developed from approved GIS mapping software.
- A general pest detection worksheet for NAPIS data entry is attached (Appendix L). Data entry worksheets for the commodity surveys will be made available when completed.

The documentation of negative data is extremely important and valuable. Negative data from national surveys support trade and exports, and benefit American agriculture. The CAPS program strives to insure that all negative data is valid, and results from active survey efforts. The CAPS program is developing guidelines to assist in data entry of valid negative data. The first result of these efforts is the matrix in Appendix M. This matrix enables one to determine the appropriate pests that can be considered negative for a survey effort based on the survey methodology, trap/lure combination, etc. **Note:** Only those pests that are survey targets and actively subjected to screening should be considered negative with a particular trap and lure combination.

The Integrated Survey Information System (ISIS) is currently used in several programs to collect and manage data collected in cooperative survey efforts. ISIS should be used in cooperative surveys where appropriate (Appendix N). PPQ is striving to assure:

- Survey data and diagnostic results are entered as close to real time as possible, including both positive and negative results;
- Data elements (format, content) are standardized nationally;

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- Data will be uploaded into NAPIS as appropriate, and made available per existing protocols in the CAPS program;
- Data management processes and information will be provided nationally.

APPENDICES

Appendix A Regulatory Significance

Appendix B Roles and Responsibilities

Appendix C Roles and Responsibilities - Table Format

Appendix D Analytic Hierarchy Process (AHP) Prioritized Pest List

Appendix E Taxonomic Support

Appendix F National CAPS Committee By Laws

Appendix G Pests of National Concern for 2009

Appendix H Additional Pests of Regulatory Concern for 2009

Appendix I Outreach

Appendix J Infrastructure and Survey Templates with Excel Spreadsheet for Survey and Pest Lists

Appendix K Timeline

Appendix L NAPIS Data Entry Worksheet – General Detection Form

Appendix M EWB/BB Trap and Lure Methodology for Negative Data

Appendix N Data Management