

<b>Year:</b>	2013
<b>State:</b>	Utah
<b>Cooperative Agreement Name:</b>	Utah Plant Pest Infrastructure Project
<b>Cooperative Agreement Number:</b>	13-8549-1640-ca
<b>Project Funding Period:</b>	July 1, 2013 – June 30, 2014
<b>Project Report:</b>	<b>CAPS Infrastructure Report</b>
<b>Project Document Date:</b>	September 23, 2014
<b>Cooperators Project Coordinator(s):</b>	Ricardo Ramirez, Lori Spears
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Quarterly Report	<input type="checkbox"/>
Semi-Annual Accomplishment Report	<input type="checkbox"/>
Annual Accomplishment Report	<input checked="" type="checkbox"/>

**A. Compare actual accomplishments to objectives established as indicated in the workplan. When the output can be quantified, a computation of cost per unit is required when useful.**

The Utah CAPS (Cooperative Agricultural Pest Survey) Program is a cooperative agreement between Utah Department of Agriculture and Food (UDAF) and Utah State University (USU). Each entity has designated a State Survey Coordinator (SSC). The CAPS Utah Plant Pest Infrastructure Project was funded by USDA-APHIS-PPQ (United States Department of Agriculture – Animal and Plant Health Inspection Service – Plant Protection and Quarantine), with administration of funds through UDAF. This project provided support for Dr. Lori Spears<sup>1</sup>, State Survey Co-Coordinator (USU), under the supervision of Dr. Ricardo Ramirez, Extension Entomologist (USU), both of which worked in cooperation with Robert Hougaard, Plant Industry Division Director (UDAF), Clint Burfitt, State Survey Co-Coordinator (UDAF), and Dawn Holzer, Utah/Nevada Pest Survey Specialist (USDA-APHIS-PPQ). The Utah CAPS Program Committee has nearly 20 members from state and federal agencies specializing in various disciplines, including entomology, forestry, plant pathology, weed science, agriculture and IPM/pesticide usage. The main objective of the Utah CAPS Committee is to identify emerging priority pests for Utah and to improve sampling techniques for future survey programs. The Committee receives pertinent updates about potential invasive pest activity throughout the year and at the CAPS Committee meetings. As needed throughout the year, the CAPS Committee helps disseminate information to interested parties, such as USU Extension, the Bureau of Land Management, the Utah State Horticultural Association, the Northern Utah Fruit Growers, and the Utah Nursery and Landscape Association.

In addition to the outreach efforts of the CAPS Committee, Dr. Spears updated and maintained the Utah CAPS Program website ([www.utahpests.usu.edu/caps](http://www.utahpests.usu.edu/caps)). This website contains information about various invasive pests and updates and links that might be useful to stakeholders and the Utah CAPS Committee. Additionally, Dr. Spears gave various presentations (10) on insect pests to stakeholders, USU extension faculty, and seasonal inspectors/personnel, and took several calls and emails (20) about suspected invasive pests. To date, Dr. Spears has written 6 newsletter articles highlighting invasive pests (e.g., monitoring, identification), authored 1 fact sheet, co-authored a peer-reviewed journal article, created pest rack cards, and contributed to several USU pest advisories.

Dr. Spears worked with other USU Biology faculty and Extension personnel to submit additional pest detection surveys and to determine the location of appropriate survey sites, respectively. Dr. Spears collaborated with Dr. Ramirez to complete a survey for invasive pests in alfalfa and corn fields, Dr. Claudia Nischwitz (Plant Pathologist, USU) to complete surveys for invasive pests in orchards and small grains, and Clint Burfitt and Kristopher Watson (Data Manager, UDAF) to get survey data entered into the National Agriculture Pest Information System (NAPIS) database by December 31, 2013. In addition, Dr. Spears maintained regular contact with Clint Burfitt, Dawn Holzer, and other state CAPS committee members, and participated in monthly conference calls with other Western region SSCs, and participated in various other related conference calls (e.g., Utah's EAB Pre-Detection Committee) and meetings (e.g., Fruit Insect Ad Hoc Committee).

Dr. Spears also developed 2014 work plans, which will include surveys for 19 invasive pests and a series of educational workshops on some of these pests (spotted wing drosophila, brown marmorated stink bug, and emerald ash borer). She also sought other funding sources and received funding to examine non-target insects (“by-catch”) from CAPS pest detections surveys (in collaboration with Dr. Ramirez) and conduct surveys for spotted wing drosophila in wild and feral host habitats (in collaboration with Drs. Ramirez and Diane Alston (USU Extension Entomologist). These projects were funded by USU Cooperative Extension. Dr. Spears also received funding from USU for an Extension intern, who is in the process of helping her and Dr. Ramirez put together an Invasive Insect Field Guide for Utah. This field guide, when completed in fall 2014, will be disseminated to other CAPS committee members and stakeholders at grower meetings, etc. Dr. Spears has also started to put together 2015 work plans.

Dr. Spears is a member of the multistate research group, WERA 1021, which is a collaborative effort to improve the understanding of spotted wing drosophila (SWD) biology and management. In November 2013, Dr. Spears met with (in Austin, TX) other members of this group and gave a summary of SWD activity in Utah. Additionally, in April 2014, Dr. Spears volunteered to co-organize a symposium on Invasive Pests at the Pacific Branch meeting of the Ecological Society of America (in Tucson, AZ). During this symposium, Dr. Spears gave a talk on SWD activity in the Intermountain West, focusing primarily on Utah. Dr. Spears and Dr. Diane Alston (USU Extension Entomologist) have recently collaborated with researchers from other western states to submit a proposal to get a similar multistate research group started on the brown marmorated stink bug. The project was funded, and Drs. Spears and Alston will become Utah’s representatives for this group.

### **REVIEW OF 2013 PROJECTS**

#### *Utah State University*

1. Utah Plant Pest Infrastructure Project (Ricardo Ramirez and Lori Spears)
2. Alfalfa and Corn Commodity Pest Survey (Ricardo Ramirez and Lori Spears)
3. Small Grains Commodity Survey (Lori Spears and Claudia Nischwitz)
4. Orchard Commodity Survey (Lori Spears and Claudia Nischwitz)
5. Imported Fire Ant Survey (James Pitts)
6. Cereal Leaf Beetle Biological Control Survey (Edward Evans)
7. Assessing Success of Weed Biocontrol (Edward Evans)

#### *Utah Department of Agriculture and Food*

1. Asian Defoliators Survey
2. Emerald Ash Borer Survey
3. Exotic Wood Borer/Bark Beetle Survey
4. Gypsy Moth Survey
5. Grasshopper Survey
6. Pine Shoot Beetle Survey
7. Statewide Biological Control
8. Honey Bee National Survey
9. Khapra Beetle Survey

**2014 PROJECT PLANS**

*Utah State University*

1. Utah Plant Pest Infrastructure Project (Ricardo Ramirez and Lori Spears)
2. Alfalfa and Corn Commodity Pest Survey (Ricardo Ramirez and Lori Spears)
3. Small Grains Commodity Survey (Lori Spears and Ricardo Ramirez)
4. Orchard Commodity Survey (Lori Spears and Claudia Nischwitz)
5. Solanaceous Crop Survey (Lori Spears, Claudia Nischwitz, and Ricardo Ramirez)
6. Invasive Species Outreach (Lori Spears, Ryan Davis, and Ricardo Ramirez)
7. Imported Fire Ant Survey (Lori Spears and Ricardo Ramirez)
8. Cereal Leaf Beetle Biological Control Survey (Edward Evans)
9. Assessing Success of Weed Biocontrol (Edward Evans)

*Utah Department of Agriculture and Food*

1. Asian Defoliators Survey
2. Exotic Wood Borer/Bark Beetle Survey
3. Gypsy Moth Survey
4. Pine Shoot Beetle Survey
5. Statewide Biological Control
6. Honey Bee Pests and Diseases Survey
7. Khapra Beetle Survey

**B. If appropriate, explain why objectives were not met.**

Objectives were met.

**C. Where appropriate, explain any cost overruns or unobligated funds in excess of \$1,000.**

There were no cost overruns or unobligated funds.

**D. Supporting Documents**

N/A

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*\*indicates information is required per 7 CFR 3016.40 and 7 CFR 3019.51*

**Approved and signed by**

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**Cooperator**

**Date:** \_\_\_\_\_

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**ADODR**

**Date:** \_\_\_\_\_