

Indiana Cooperative Agricultural Pest Survey

2014 Annual Report Soybean Commodity Survey

1 January – 31 December



Department of Entomology at Purdue University
Indiana Department of Natural Resources (IDNR)
United State Department of Agriculture (USDA), Animal and Plant Health Inspection Service
(APHIS), Plant Protection and Quarantine (PPQ)

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CAPS 2014 Annual Report

Year:	2014
State:	INDIANA
Cooperative Agreement Name:	Indiana Agricultural Pest Surveys (CAPS) 2014
Cooperative Agreement Number:	14-8218-0332-CA
Project Funding Period:	1 January 2014 – 31 December 2014
Project Report:	CAPS Soybean Commodity Survey
Project Document Date:	31 March 2015
Cooperators Project Coordinator:	Larry W. Bledsoe
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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 work plan. When the output can be quantified, a computation of cost per unit is required when useful.

Objective 1. Utilize cooperator and APHIS program funding, as outlined in the financial plan within the authorized parameters to conduct a soybean commodity survey, process trap samples, and deliver results to the NAPIS database. The Cooperator seeks to conduct a program that is expected to provide information about the presence or absence of the potentially damaging exotic pests including old world bollworm, *H. armigera*, summer fruit tortrix, *A. orana*, silver Y-moth *A. gamma*, golden twin-spot moth, *C. chalcites*, and Egyptian cotton leafworm, *S. littoralis*.

a. Soybean commodity survey:

Proposed data were 1,200 records.

Actual data were 1,300 records.

Proposed and actual funding was \$4,722.

Cost per unit was \$3.63.

a1. Survey Methodology (trapping protocol): Survey methods were adapted from the

CAPS Soybean Commodity Guidelines (25 July 2007) and the CAPS Pest Risk Assessment publication by Vennette, et al. 2003. Mini Risk Assessment, Old World Bollworm *Helicoverpa armigera*, Hubner [Lepidoptera : Noctuidae].

Four high-risk trap sites that have high concentrations of grain crops (soybean and field corn), vegetable (primarily tomato, sweet bell pepper, and sweet corn), and alfalfa hay were chosen for this survey. Trap numbers and types placed at each site include: five universal bucket traps (green/yellow/white) with lure and kill strips for each of old world bollworm, *Helicoverpa armigera*, Egyptian cottonworm, *Spodoptera littoralis*, and silver Y-moth *Autographa gamma*; five red paper delta traps (2 sides sticky with ends open) with lure for summer fruit tortrix, *Adoxophyes orana*; and five wing traps with lure for golden twin-spot moth, *Chrysodeixis chalcites*. Traps were set on 12-13 May and were serviced weekly through the end of the reporting period (11 -13 August; 13 weeks).

a2. Trap locations and dates;

1. La Porte Co. Pinney-Agricultural Center, Wanatah, IN, set 13 May.

2. Knox Co. Southwest-Purdue, Vincennes, IN, set 12 May.

3. Randolph Co. Davis-Purdue Agricultural Center, Farmland, IN, set 12 May,

4. Tippecanoe Co. Meigs-Purdue Horticultural Center, Lafayette, IN, set 13 May.

Trap period extended weekly mid May to mid August (13 sample dates).

a3. Benefits and Results of Survey:

No target species were recovered. As in previous years, several species of endemic tortricid and noctuid moths responded to the specific pheromones resulting in large numbers of moths to screen. This resulted in many hundreds of endemic *Helicoverpa zea* and cryptic tortricid spp. screened by micro-dissection.

a4. Database submissions:

Old world bollworm, *Helicoverpa armigera*,
Date Range: 01-01-2014 thru 12-31-2014
Counties 4 Sites 4 Pos 0 Neg 260

Egyptian cottonworm, *Spodoptera littoralis*,
Date Range: 01-01-2014 thru 12-31-2014
Counties 4 Sites 4 Pos 0 Neg 260

Silver Y-moth *Autographa gamma*;
Date Range: 01-01-2014 thru 12-31-2014
Counties 4 Sites 4 Pos 0 Neg 260

Summer fruit tortrix, *Adoxophyes orana*; and
Date Range: 01-01-2014 thru 12-31-2014
Counties 4 Sites 4 Pos 0 Neg 260

Golden twin-spot moth, *Chrysodeixis chalcites*.
Date Range: 01-01-2014 thru 12-31-2014
Counties 4 Sites 4 Pos 0 Neg 260

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

All objectives for reporting period (1 January to 31 December) were met.

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

All funds were expended with no cost overruns.

D. Supporting Documents (if applicable) none attached

**indicates information is required per 7 CFR 3016.40 and 7 CFR 3019.5*

Approved and signed by

Philip T. Marshall (Cooperator)

Date: _____

Gary W. Simon (ADODR)

Date: _____