Northeastern IPM Center
Partnership Project Final Report

Note: *This document is an overview of the online form. Please submit your report online at* http://neipmc.org/go/finalreport

Instructions

Use this form to submit the final report for your project. Complete each section below and include responses to as many of the questions as are relevant to your project. Please provide enough detail so that someone who is not familiar with your project can understand what you were trying to achieve, how you went about it, and what you accomplished.

Project Information

Project title _____

Lead project director _____

Project type:
- ☐ IPM Issue
- ☐ IPM Working Group
- ☐ IPM Communication

Grant agreement number _____

Report Information

Reporting period _____

Contact information for person submitting report
- Name _____
- Email _____
- Phone _____

Date report submitted _____

Project Categorization Data

Target Pests — Check all that apply

- ☐ annual bluegrass weevil
- ☐ ants
- ☐ aphids
- ☐ apple leaf curling midge
- ☐ apple maggot
- ☐ apple scab
- ☐ Asian tiger mosquito
- ☐ bacterial diseases
- ☐ barberpole worm
- ☐ bed bug
- ☐ biennialism
- ☐ black root rot
- ☐ blight (early)
- ☐ blight (fire)
- ☐ blight (late)
- ☐ brown marmorated stink bug (BMSB)
- ☐ cockroaches
- ☐ colony collapse disorder
- ☐ Colorado potato beetle
- ☐ conifer and Christmas tree nursery pests
- ☐ cranberry fruit rot
- ☐ cranberry fruitworm
- ☐ cranberry girdler
- ☐ cranberry weevil
- ☐ European brown rot
- ☐ European swallow-wort
- ☐ fire blight (*Erwinia amylovora*)
- ☐ flea beetles
- ☐ fly speck
- ☐ fungus
- ☐ grape berry moth
- ☐ herbicide resistant weeds
- ☐ honey bee mite
- ☐ insects
- ☐ invasive terrestrial plants
- ☐ lepidoptera
- ☐ mold
- ☐ mummy berry disease
- ☐ mushroom pests and diseases
- ☐ nematodes
- ☐ obliquebanded leafroller
- ☐ oriental fruit moth
- ☐ parasites

- ☐ peach scab
- ☐ plum curculio
- ☐ potato leafhopper
- ☐ powdery mildew
- ☐ predatory mites
- ☐ rodents
- ☐ scale
- ☐ septoria leaf spot
- ☐ slugs
- ☐ small fruit insects, weeds & diseases
- ☐ small hive beetle
- ☐ sooty blotch
- ☐ Sparganothis fruitworm
- ☐ spider mites
- ☐ spotted wing drosophila
- ☐ strawberry sap beetle
- ☐ striped cucumber beetle
- ☐ swallow-wort
- ☐ Swede midge
- ☐ tarnished plant bug
- ☐ ticks
- ☐ various
- ☐ varroa mite
- ☐ weeds
- ☐ western bean cutworm
- ☐ western flower thrips
- ☐ white grubs
- ☐ white rust (fungi)
- ☐ wildlife
- ☐ winter moth
- ☐ wireworm
- ☐ other _____

Target Crops — Check all that apply

- ☐ alfalfa
- ☐ apples
- ☐ beans
- ☐ beans (dry)
- ☐ beans (snap)
- ☐ blueberries
- ☐ brassicas
- ☐ butternut squash
- ☐ cherries
- ☐ Christmas trees
- ☐ conifers
- ☐ corn

- ☐ corn (field)
- ☐ corn (sweet)
- ☐ cover crops
- ☐ cranberries
- ☐ cucurbits
- ☐ dairy
- ☐ eggplant
- ☐ flowers
- ☐ forage
- ☐ fruit
- ☐ goat
- ☐ grapes
- ☐ grapevine
- ☐ greenhouse
- ☐ hardy kiwi, tara vine (*Actinidia arguta*)
- ☐ honey bees
- ☐ hops
- ☐ lima beans
- ☐ livestock
- ☐ mushroom
- ☐ nectarines
- ☐ onions
- ☐ ornamentals
- ☐ peaches
- ☐ pears
- ☐ peppers
- ☐ pollinators
- ☐ potatoes
- ☐ raspberries
- ☐ roses
- ☐ sheep
- ☐ small fruit
- ☐ small grain
- ☐ soybeans
- ☐ spinach
- ☐ stone fruit
- ☐ strawberries
- ☐ sunflowers
- ☐ tomatoes
- ☐ tree fruit
- ☐ turf
- ☐ vegetables
- ☐ other _____

IPM Tools — Check all that apply

- ☐ behavioral control

- ☐ biological control
- ☐ cultural control
- ☐ decision support aids
- ☐ diagnostic tool
- ☐ education
- ☐ eradication
- ☐ exclusion/avoidance
- ☐ forecasting
- ☐ habitat modification
- ☐ host resistance
- ☐ ID guide
- ☐ IPM management guide
- ☐ IPM priorities & guidelines
- ☐ lower-risk IPM tactics
- ☐ mechanical control
- ☐ mobile app
- ☐ modeling
- ☐ monitoring
- ☐ pesticides
- ☐ plant growth regulators
- ☐ other _____

Signature Program — Choose one

- ☐ IPM and Organic Systems
- ☐ Climate Change and Pests
- ☐ Rural and Urban IPM – Agriculture
- ☐ Rural and Urban IPM – Community
- ☐ Rural and Urban IPM – Greenhouse
- ☐ Rural and Urban IPM – Landscape
- ☐ Rural and Urban IPM – Livestock
- ☐ Rural and Urban IPM – Structure
- ☐ Next Generation Education – general public
- ☐ Next Generation Education – grad
- ☐ Next Generation Education – pre-K–12
- ☐ Next Generation Education – profs/landowners
- ☐ Next Generation Education – undergrad
- ☐ Advanced Production Systems

Project Summary

Provide an overview of your project, briefly (2–3 sentences) outlining the problem(s) and how your project addresses them. Refer to your proposal.

What is the problem?

What is the rationale for your project?

What is the overall goal of your project?

Objectives and Progress

Provide a list of all project objectives in the boxes below. Include an estimate of the percentage completed and a short explanation for delays, if any.

	Objective (short description)	Percentage Complete (%)	Please Explain (short description)
Objective 1			
Objective 2			
Objective 3			
Objective 4			
Objective 5			
Objective 6			
Objective 7			
Objective 8			

Demographics and Target Audience

Provide a description of the target audience(s) reached by your efforts during this reporting period.

Size — Choose one

- ☐ Exact number: _____
- ☐ less than 100
- ☐ 100–499
- ☐ 500–999
- ☐ 1,000–5,000
- ☐ more than 5,000

Location — Check all that apply

- ☐ Connecticut
- ☐ District of Columbia
- ☐ Delaware
- ☐ Maine
- ☐ Maryland
- ☐ Massachusetts
- ☐ New Hampshire
- ☐ New Jersey
- ☐ New York
- ☐ Pennsylvania
- ☐ Rhode Island
- ☐ Vermont
- ☐ West Virginia
- ☐ National – radio
- ☐ National – television
- ☐ National – website
- ☐ other _____

Demographics — Check all that apply

- ☐ arborists
- ☐ beginning farmers
- ☐ extension educators
- ☐ foresters/loggers
- ☐ general public
- ☐ growers
- ☐ Hispanic – community
- ☐ Hispanic – low income
- ☐ Hispanic – urban
- ☐ homeowners
- ☐ immigrant
- ☐ industry/regulators
- ☐ land managers

- ☐ lawn care professionals
- ☐ low income
- ☐ maintenance staff
- ☐ organic association representatives
- ☐ pest management providers
- ☐ private consultants
- ☐ property managers
- ☐ public health
- ☐ refugee
- ☐ researchers
- ☐ residents
- ☐ school/childcare
- ☐ small minority farmers
- ☐ state and federal policy makers
- ☐ students
- ☐ tribes
- ☐ urban – general
- ☐ urban – homeless
- ☐ other _____

Outputs (IPM Issues)

Answer if project type "IPM Issue" is selected

Provide a brief description (1–2 sentences each) of the **a)** study design, **b)** procedure (statistical analysis, data collection, potential confounding factors or limitations), and **c)** key results.

Examples:

- Established 16 plots in a randomized complete block design with 4 blocks of 4 plots each to determine pattern of weed emergence in tomato, lettuce, and broccoli. Two sites had clay loam soils and the third was sandy. The results showed that...
- Completely randomized design, collected data on 3 apiaries of 12 Langstroth hives each to determine the population size of varroa mites and the prevalence of *Nosema ceranae*. One of the apiaries used insecticides for mite control. The results showed that...

Outputs (IPM Working Group/Communications)

Answer if project type "IPM Working Group" or "IPM Communication" is selected

Provide an overview (3–5 sentence paragraph) of activities or tactics implemented as a result of your project.

Examples:

- Provided regional/educational trainings
- Presented IPM program(s) at area science center, museum, or to group
- Developed and distributed web-based key on common pests
- Created a website that enabled users to accurately diagnose plant problems
- Developed a new IPM biocontrol strategy that would allow participants to more precisely assess the need for early season scouting

Academic Publications

List all academic publications produced by your project below.

Title of Article	Title of Journal/ Publication	Type of Publication [1]	Status [2]	Was the Northeastern IPM Center support acknowledged? [3]	Was the USDA NIFA support acknowledged? [3]	Link to article or publication	Additional information

1 Choose from: Article/Book/Journal/Poster/Thesis/
2 Choose from: Published/Submitted/Under Review
3 Choose Yes/No

Educational Materials and Other Outreach Methods

Please tell us about any educational materials, publications, or other outreach methods resulting from your project. Fill in the information for each item you want to report on below. This section will repeat, so you can enter additional outreach products or methods.

Outreach method — Check one

- ☐ App
- ☐ articles/newsletters
- ☐ commodity meeting
- ☐ community presentation
- ☐ conference presentation/display
- ☐ K–12 curriculum
- ☐ display
- ☐ field day
- ☐ field guide/brochure
- ☐ forecasting system
- ☐ grower meeting
- ☐ health fair
- ☐ Listserv
- ☐ presentation
- ☐ private consultation
- ☐ public service announcement
- ☐ publication
- ☐ radio interview
- ☐ seminar
- ☐ social media
- ☐ trade show
- ☐ training
- ☐ TV show
- ☐ video
- ☐ webinar
- ☐ website
- ☐ workshop
- ☐ other _____

Description — List title, date, location, or other appropriate information such as a URL

Estimated number of people reached _____

Would you like to report on additional outreach products or methods?

- ☐ Yes — Repeat these questions for another outreach product or method
- ☐ No — Continue to next section

Leveraged Funds

List any additional funding you have acquired because of the data or results yielded by this Northeastern IPM Center-funded project.

Grant title _____
Funding source _____
Date of award _____
Total dollar amount _____
Duration of the funding _____

Would you like to enter information about another leveraged funding source?

- ☐ Yes — Repeat this question for another leveraged funding source
- ☐ No — Continue to next section

Outcomes (IPM Issues)

Answer if project type "IPM Issue" is selected

While the outputs from your project pertain to the results from actual experiments, we also want to know if there were any outcomes. The changes in knowledge are short-term effects or outcomes that can result from research studies. We know that some research is not ready for audiences and outcomes are going to be minimal or non-existent. However, if your research was extended to a target audience in some way, shape, or form (e.g., workshop, field day, course, training), we want to know what the effects were on knowledge change by your target audience. Projects that did not measure changes can skip this section.

In completing this section, please be specific about:

1. Whether new knowledge was developed OR added to existing knowledge
2. How existing knowledge AND added knowledge of the target populations was measured

The following examples are provided to help in completing this section for knowledge gains (short term):

- In this study, 60 respondents stated that they have a good or excellent understanding of bed bug detection methods after the presentation compared to 30 before the presentation.
- Following the presentation, 80% of participants said that they had improved their decision-making skills in managing their crops.
- Using the material from this study in a training course, 80% of participants improved their identification, diagnostics, and management skills.
- Growers who adopted the IPM practice in this study reduced their costs of whitefly control in poinsettias from $1.18 per plant to $0.18.

Outcomes (IPM Working Group/Communication)

Answer if project type "IPM Working Group" or "IPM Communication" is selected

While project activities (outputs) describe the steps you have taken in advancing your goals, project outcomes are used to address questions, such as, if your project is successful, what will be different in the participants as a result of your project and among which target population(s) in the short term? Project outcomes are the short-term effects that your work has possibly had on changing the knowledge, attitudes, or sometimes behavior of your target audience. In this section, we want you to assess the outcomes of your project.

Please be specific about:

1. Whether new knowledge was developed OR added to existing knowledge

2. How existing knowledge AND added knowledge of the target populations was measured

The following examples are provided to help in completing this section for knowledge gains (short term):

- The survey showed that 80% of the participants attended the working group's trainings on how to adopt IPM practices. Of that group, 74% have demonstrated the increased use of IPM practices into their farm operation.
- Developed a network of growers and industry personnel that increased information exchange and/or connections by 50%.
- Community-based integrated mosquito management programs were adopted in 15 urban and 5 rural neighborhoods that had the highest mosquito infestations.
- At 10 farmers markets, 75% of respondents increased their understanding of IPM by listening to a talk and receiving handouts.

Impacts

Impacts often consist of intermediate and long-term effects on human behaviors and conditions (e.g., environment, social, and economics). In describing the goals of your project, the impacts are directly and often indirectly related to the objectives and emerge when the project has been successfully carried out. We want to know the full impacts of your project (e.g., what long-term changes resulted from your project) as much as possible. Collecting the right data to detect and measure impacts can be a challenge, but it is an important part of your project's results. For additional help with reporting impacts, please see the following link: http://neipmc.org/go/QwaW

Examples

For behavior changes (medium term)

- A 50% increase in demand for plants grown using IPM practices
- IPM training that reduced the use of pesticidal tactics by 50%
- By bringing building managers using IPM together with those who are calendar spraying, 100% adoption of IPM practices was obtained within 3 years.

For condition changes (long term)

- IPM practices have lowered the need for pesticides in strawberries with fewer risks of exposure to applicators and environmental contamination
- Residents (n=1,000) in urban communities took ownership of their pest management for positive changes that led to new building codes
- Fewer pesticides contributing to toxic indoor environmental conditions contribute to improvement in child health
- Crop diversity in vegetable production leads to fewer inputs for pest management that improves ecosystem services

Additional Information

Please include any additional information that would be useful in helping us to understand or evaluate your project.

File Upload

If you have other documents that you would like to include in your report, you may upload a file here (maximum size 16 mb).