

Encouraging Adoption of IPM
through NRCS conservation programs:
update from the Northeast

Ruth Hazzard, University of Massachusetts
Extension Vegetable Program

Kathy Murray, Maine Dept of Agriculture
Vegetable IPM Working Group

Craig Hollingsworth, UMass Extension
Carrie Koplinka-Loehr, NE IPM Center

IPM/Extension Goal:

increased adoption of IPM practices
(with support from NRCS programs)

NRCS goal:

increase use of conservation practice
standards to mitigate risks to resources

Goal: increased adoption of IPM practices
with support from NRCS programs –

How to get there?

- Communication
- Training
- IPM Guidelines
- 595 cost-sharing structure
- Cooperative agreements
- Grant-funded projects
- Publications and other tools

Communication:
Regional NRCS/IPM meetings
In-state NRCS/IPM meetings

--get to know each other

--learn how the other organization works

--explore language differences

“IPM practices” vs “Pest Management Practice Standard”

“IPM Guidelines” vs “Guidesheets” or “Jobsheets”

--define different and common goals and needs

Communication: NRCS/IPM meetings

- Find out who in each organization cares about IPM
- Include state dept of agriculture, EPA, grower groups, consultants
- Include both state and district/county staff
- Work both top down and bottom up
- Send IPM newsletters to NRCS state and field staff

Training

- Who needs training?
 - NRCS staff
 - Growers
 - Consultants
 - Extension staff
- What do they need to know?
 - What are key IPM practices?
 - How do you do them in each crop?
 - How do they relate to conservation standards and resource concerns?
 - How can/does EQIP support them using incentive payments?

Training the Grower: The Connecticut model

- Cooperative agreement between NRCS and CT Extension or CT Ag. Experiment Station staff
- One on one, on-farm training throughout the season
- More intensive training, weekly visits in first year
- Grower more independent in second and third years
- NRCS pays half the salary for the time spent
- Grower also gets cost share

Opportunities for Training NRCS staff

- Eastern Region Technical Meeting
 - 2005 - Rhode Island
 - 2006 - Virginia
- State or regional Pest Mgt Training
 - 2006- Massachusetts (New England)
- Visit/study/highlight cooperating farms
 - 2006 - Maine and Massachusetts
 - 2007 – ME, MA, CT, MD

****We all learn from these workshops****

IPM Elements/Guidelines

“Crop specific best management practices”

- Include many components:
 - Site preparation and selection
 - Soil & Nutrient Management
 - Cultural Practices
 - Pesticide Application
 - Recordkeeping
 - Disease Management
 - Insect Management
 - Weed Management
 - Post harvest

Concepts of IPM Elements/Guidelines in NYS & MA

- Same general categories used for all crops.
- Practices are specific to the crop
- Points are assigned to each practice
- Grower must meet a proportion of total points to qualify for IPM certification
- Growers have flexibility in meeting the required number of points.
- Specific scouting methods and thresholds may be listed, or Elements may refer to current Extension publications.

NRCS approach to IPM : “PAMS”

- Prevention
- Avoidance
- Monitoring
- Suppression

Code 595 Pest Management Standard: cost-sharing structure

Encourage growers to enroll in it

Emphasize and encourage key practices

Make it meaningful yet practical

Pay enough to make it worthwhile

Adapt to each state and crop

Include record keeping requirements

Differs greatly between states

595 cost-sharing structure used in Massachusetts

Per-acre incentive payment for medium and high
levels of IPM adoption

Based on IPM Guidelines (written into Code 595)

Additional incentive payments for certain types of
IPM practices

Pest Management Calculator used to determine
payments

Targets primarily fruit and vegetable crops

595 cost-sharing structure examples:
New Jersey

- Pay for different levels of adoption
 - “Beginning” IPM
 - “Advanced” IPM
- Allows more years in the program
- Encourages growers to adopt IPM step by step

Grant-funded projects in Northeast

- Vegetable IPM Working Group – two Partnership Grants from IPM Center
- Massachusetts and Rhode Island Extension – Conservation Innovations Grant from Rhode Island
- Northeast IPM Center – IPM Special Projects Grant from USDA/CSREES
- Penn State – cooperative agreements for fruit IPM

Vegetable IPM Work Group

Two Partnership Grants, 2005-2007

- Conduct IPM workshops for NRCS
- Build a network of key participants in each state
- Identify existing training resources and curricula
- Create ‘crossover’ website – information source for how to make this happen (hosted at NE IPM Center)
- Develop or modify fact sheets, payment sheets, models and other tools used by NRCS
 - Focus on sweet corn
- Organize farm tours for agricultural and IPM professionals to highlight ‘crossover’

CIG Grant: Integration of IPM Guidelines for Fruit and Vegetable Crops with NRCS Conservation Practices

- **Revise Massachusetts IPM guidelines**
 - New technology since 1999
 - Add fruit and vegetable crops not covered
 - New England-wide applicability
 - Better fit with NRCS programs and goals
- **Field test and evaluate updated IPM guidelines on EQIP eligible farms**
- **Provide training**
- **Evaluate adoption and impact of IPM guidelines on natural resources (SWAPA)**

Northeast IPM Center Grant: Building Bridges between IPM and NRCS

- Offer a series of joint NRCS-IPM on-farm workshops (MA, ME, CT, MD)
- Develop two new and update two existing IPM Guidelines that fit the NRCS Pest Management Practice Standards. (Tom Green)
- Create a ‘Guide to IPM Guidelines’ for linkage with NRCS Programs (Tom Green)
- Post documents on NE IPM Center’s website
- Produce a final report, including impact stories and photographs

Feedback from Mass. NRCS field staff on the current system – October 2006 meeting

- **Staff use the IPM Guidelines at both the ‘front and the ‘back’ end**
- **Not user friendly - Technically complicated**
- **Growers can’t fill out the worksheets by themselves**
- **Growers don’t know how to identify pests or diseases**
- **Growers don’t know about IPM, especially on small farms**
- **Big farms with a consultant: consultant has no incentive to fill out the forms**
- **Hard to get records – even from a consultant, because the grower has to give permission.**
- **We don’t know what the consultants are doing for scouting**
- **Some growers produce a little bit of everything – have to fill out all the Guidesheets -- one for each crop**

Penn State – cooperative agreements

- Cooperative agreements for \$1 M to support tree fruit growers in IPM implementation
- Previous funding has given incentives for high level, advanced IPM Implementation
- Close cooperation between NRCS and Penn State IPM Research & Extension Fruit program
- Links current state-of-the-art IPM with growers
- Plans to expand to vegetable growers

Suggestions from Mass. NRCS field staff – what they need to make it work better

- **Create a general IPM guideline that works for all crops.**
 - **Key types of practices: monitoring, thresholds, reduced risk products**
- **Run Win PST for some representative soils for certain crops and the pesticides that are commonly used on them.**
- **Pull OUT of Crop-specific IPM Guidelines farming practices that are cost-shared in other NRCS Practice Standards**
 - **(eg crop rotation and cover cropping and nutrient management).**
 - **Make sure you require the key elements of IPM**
- **Create a short grower-friendly document**
 - **What is IPM; what would be considered a ‘high level of IPM’ or a ‘medium level of IPM’**
 - **-- a general description (not crop specific), in paragraph form, easy to understand, what real growers are actually doing.**

Applying IPM Guidelines to NRCS: some of the challenges

- How to translate equipment cost into practices
- How to make sure that growers use scouting as part of their IPM implementation
- How to support the cost of hiring crop scouting/consulting services OR training growers to do it themselves
- How to update guidelines to stay current with new practices
- How to reach conservation goals while addressing farmers' need for efficacy in pest management and profitability



The farm itself is where everything integrates