

## Increased Sponsorship of IPM adoption: Making It Work on the Ground



The US Farm Bill recognizes the environmental value of IPM by authorizing financial assistance to growers through two USDA Natural Resources Conservation Service (NRCS) programs: Environmental Quality Incentives Program (EQIP) and Conservation Security Program (CSP). Starting in 2003, Michigan State University, Center of Agricultural Partnerships, Agricultural consultants, and Commodity groups worked with NRCS program and county staff to recommend financial incentive rates for IPM adoption and other program criteria and to help growers participate in the conservation programs to implement IPM tactics with combined resource and plant protection value. See acknowledgements for our team members and sponsors.

### Key activities:

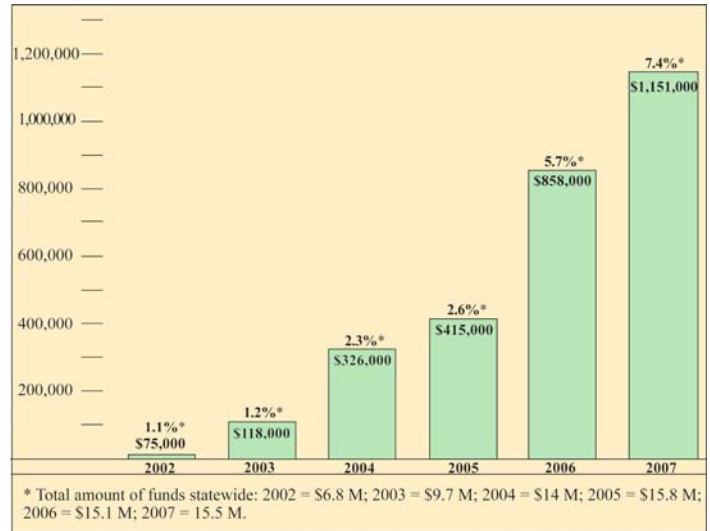
- IPM tactics sponsored in the NRCS pest management standard can be used to address ground water, surface water, air quality, and soil health concerns (previously, only the first two concerns were recognized). This appropriately strengthens growers' requests for public funds to use IPM.
- Often multiple tactics are needed to address conservation concerns, and costs vary by commodity sector. To address these issues, financial incentives to support IPM adoption have been adjusted:
  - In EQIP for 2007, pest management is supported through financial incentives categorized by commodity segment: \$60/acre for fruit/nursery/Xmas tree/sod, \$30/acre for vegetables, \$5/acre for field crops, and most recently \$250/acre for neglected apple orchard removal.
  - In CSP for 2007, pest management is supported by separate components: manage field border and strips for beneficial insects (\$5/acre), use conservation crop rotation to break pest cycles (\$5/acre), use reduced-risk pesticides (\$5-20/acre), use precision pesticide application technologies (\$3/acre), enhance pest management record keeping (\$3/acre), manage pests by non-chemical or pest avoidance means (\$5/acre).
- MSU IPM Program staff, Extension educators, and faculty developed 'how to' guides summarizing the steps in participating in the programs, and developed IPM tactic lists for grower use in developing plans to adopt IPM (<http://www.ipm.msu.edu/farmbill/eqip.htm>).
- A cosponsored (MSU, NRCS, and Michigan Department of Agriculture Groundwater Stewardship program) course was developed to increase staff understanding of IPM.
- Many existing education programs sponsored by MSUE and our commodity sector partners provided opportunities to talk about these opportunities.

### Key impacts:

- Project surveys indicated that grower awareness of USDA conservation program support for IPM increased from 25 to 75 percent of respondents during the project.
- In 2004, 46 EQIP applications were approved in 4 pilot counties with the help of private consultant/MSU/NRCS teams, double the number approved in 2002.
- In 2005, 73 EQIP applications were approved in 5 pilot counties. Two counties neighboring our pilot counties requested information and had approved 35 applications, many with an IPM component.
- In 2006, participation surged, with an over \$400,000 jump in funds allocated to growers to implement IPM.



- There has been a 15-fold increase in funds devoted to IPM implementation statewide from 2002 to 2007. Grower requests for IPM support represented about 15% of funds in an EQIP contract in our original 5 pilot counties (2005) compared to about 1% statewide when we started.
- For CSP, about 112 applications were approved in Oceana Co in 2005, one of 14 participating counties.
- Growers are adopting a variety of IPM tactics using these financial incentives:
  - Adding electronic sensing technology and use of shielded sprayers to reduce drift.
  - Converting to flamer/steamer weed control.
  - Removing wild host plants of pests.
  - Converting to pesticides with low risk potential.
  - Utilizing disease inoculum reduction strategies.
  - Providing nesting structures for predators.
  - Implementing pesticide resistance management.
  - Using organic mulches to suppress weeds and reduce herbicide use.
  - Utilizing pesticide-alternatives like mating disruption



### Upcoming:

The EPA SAI and EPA Region 5 are supporting expanded activities beginning 2006:

- 1) Provide specialty crop representation and recommendations to NRCS.
- 2) Expand the geographic reach of the project to new areas (east and southwest Michigan)
- 3) Measure the impact on implementing IPM tactics through conservation program sponsorship.

A Northcentral IPM/NRCS work group has been formed to increase coordination.

A National CSREES/NRCS/EPA task force on IPM has been formed.

### For more information visit these websites:

[www.ipm.msu.edu/farmbill.htm](http://www.ipm.msu.edu/farmbill.htm)

[www.agcenter.org/progfarmbill.html](http://www.agcenter.org/progfarmbill.html)

<http://www.ipm.msu.edu/work-group/home.htm>

### References (reprints can be obtained by contacting Mike Brewer):

Brewer, M. J., R. J. Hoard, J. N. Landis, and L. E. Elworth. 2004. The case and opportunity for public-supported financial incentives to implement integrated pest management (Forum article). *J. Econ. Entomol.* 97: 1782-1789.

Hoard, R. J., and M. J. Brewer. 2006. Adoption of pest, nutrient, and conservation vegetation management using financial incentives provided by a U.S. Department of Agriculture conservation program. *HortTechnology* 16: 306-311.

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**Project Partners:** MSU IPM Program, Center of Agricultural Partnerships, Cherry Marketing Institute, Asparagus Advisory Board, Gerber Co., Michigan Nursery and Landscape Assn, Michigan Apple Committee, Michigan State Horticultural Society, Michigan Processing Apple Growers (Farm Bureau).

### Local participants

Local NRCS staff, Ag consultants, MSUE educators, and commodity groups worked together in northwest, westcentral, southwest, eastern, and southeastern Michigan to assist growers. Thanks to local NRCS district conservationists (Mark Kelley, Buzz Long, Pepper Bomelmeier, Scott Kenerich, Jay Blair, and other staff members), agriculture consultants (Jim Laubach, Chandra Maleckas-Bunker, Mark Doherty, Tracy Butler, Gerry Draheim, Jeanette Yakely), MSU personnel (Joy Landis, Amy Irish-Brown, Nikki Rothwell, Dave Epstein, Norm Myers, Hannah Stevens, John Wise, Mark Whalon, Tom Dudek, Carlos Garcia-Salazar), Larry Elworth (CAPS), Barbara van Til (EPA), and many more.