Summary of the National IPM Evaluation Group

In October 2004, a national interagency group was formed, called the National IPM Evaluation Group (NIPMEG), to consider how well various granting agencies are addressing the goals of the IPM Roadmap. This group has representation from the EPA Strategic Agricultural Initiative, IPM Centers, CSREES leadership, the Office of Pest Management Policy (OPMP), the Sustainable Agriculture Research and Education program (SARE), Natural Resources Conservation Service (NRCS), and the American Farmland Trust. Keeping in mind the three main goals of the IPM Roadmap, "*to improve the economic benefits of adopting IPM practices and to reduce potential risks to human health and the environment…*," NIPMEG chose a mission:

> The mission of the National IPM Evaluation Group is to facilitate and harmonize IPM impact assessment and program evaluation.

During the initial meeting of NIPMEG in Burlington, VT, attendees split into subcommittees to concentrate on four areas that had been determined to be first steps in highlighting the successes of IPM. They were: (1) finding common goals and objectives between agencies, (2) exploring methods of evaluating the success of projects, (3) developing a unified database of project reports, and (4) furthering IPM adoption in conjunction with NRCS.

Since this initial meeting, each subcommittee of NIPMEG made progress in tackling their tasks. At the 2006 meeting in November in Dallas, Texas, the work accomplished by the common goals and objectives subcommittee was used as the basis for creating a formal mission statement. Efforts by the evaluation subcommittee will provide key components for helping agencies to quantify how their grant programs are helping to achieve the IPM roadmap goals of positively impacting economics, human health, and the environment. The group has worked on a set of logic models, which provide a visual map of the steps needed to build quantifiable impact statements. See an example of a logic model that addresses the economic impacts of IPM adoption in production agriculture at the end of this article.

As grant funded research and extension projects begin to implement parts of the IPM logic models, this information, if congregated, can help to illuminate trends in IPM adoption. The reporting subcommittee's task was to investigate the possibility of creating a web clearinghouse that would display reports of projects from multiple agencies on one searchable website. The committee reviewed reporting websites from various agencies, agreed on common terms to be displayed in a unified database of reports, and decided what terms would be searchable. They then applied and received funding from the Agricultural Research Service to construct a unified database of reports. A prototype of this reporting database is ready and currently being populated and tested at IPM.gov. In 2007, this database will "harvest" reports from individual agency databases with the ultimate goal of displaying the reported information at both the individual agency level and simultaneously at the unified reporting database level without having to input the information twice. Once project reports are in one place, it will be easier to mine this larger mass of data to document successes in IPM adoption; assist researchers in finding collaborators working on similar projects in different geographic areas; view works not published in journals; and enhance grants management by showing what is currently heavily or under-funded.

In addition to ongoing work, the interagency group launched some new initiatives at the 2006 meeting in Dallas. A new subcommittee was established to communicate IPM successes that have occurred across the nation in particular crops and the first two publications will focus on apples and grapes. At this time the committee working to find ways to incorporate IPM information into NRCS standards is on hold.

Interagency Participants 2007

	Karl Arne, EPA Region 10		Van Kozak, EPA Region 6
	Jill Auburn, SARE	R	Kim Kroll- SARE
	John Ayers, Northeastern IPM Center	C	Regina Langton – EPA SAI
	Joseph Bagdon, USDA-NRSC		Tim MacDonald, Ag. and Ag-Foods, Canada
	Tom Brennan – EPA Headquarters		Rick Melnicoe, Western Region IPM Center
R	John Butler, EPA Region 3		Audrey Moore, EPA Region II
	Pat Cimino, EPA BEAD	C	Elizabeth Myers – Northeastern IPM Center
	Harold Coble, USDA-OPMP	E, C	Peg Perreault, EPA Region 8
E C	E, C - Bill Coli, University of Mass.	E C P	Carol Pilcher, Iowa State University
	Martin Draper – USDA-CSREES		Ed Rajotte – Penn State IPM Program
	Larry Elworth, Ctr. Ag. Partnerships	R	Lora Lee Schroeder, EPA Region 4
	Michael Fitzner, USDA-CSREES		Jan Seago, liaison to EPA
	Molly Freeman – EPA Region 4	E, C	Ann Sorensen, American Farmland Trust
	Tom Fuchs – IPM Coordinator, Texas	R	Ron Stinner, NSF Center for IPM
	Tom Green – IPM Institute		Ken Stoller, EPA Region 2
	Sandy Halstead, EPA Region 10	R C	Andrea Szylvian, EPA Region I
E, C	Linda Herbst, Western IPM Center	R P C	Eugene Thilsted, EPA Region 6
E P C	William Hoffman, CSREES	R P C	Elizabeth Thomas, NE IPM Center
	Stephen Hopkins, EPA, OPP	P	James VanKirk, Southern IPM Center
	Lynnae Jess, North Central IPM Center		Janice Ward, US Geological Survey
	Arnet Jones – EPA - BEAD	R, C	Cindy Wire-EPA Region 9

Subcommittee Members

C – Communications
E – Evaluation
R – Reporting database
P - Planning

Focus Area: Production Agriculture
Impact Area: Economic Impacts
Roadmap Goal: Improve the cost-benefit ratio when adopting IPM practices

Long-Term Impacts *Systematic Changes* *(in > 4 years)*	Intermediate Impacts *Behavior, Practice and Policy Changes* *(in 1-4 years)*	Short-Term Impacts *Knowledge, Awareness, Skill, Attitude Changes* *(in 3 months—1 year)*
Improve profitability of production agriculture through adoption of IPM. Possible Measures -Measure increased adoption and implementation of cost effective IPM tactics -Examine cost/benefit analyses that include externalities* -Yield and quality comparisons (side-by-side comparisons; IPM vs conventional) -Measure change in the aesthetic threshold—social acceptance of less than perfect produce -Measure increased number of farmers in certification programs and changes in cost-benefit analyses (consider market access). -Measure increased number of food processors using/demanding IPM programs and providing incentives to farmers (may have new market access). Sources of Data:	▪ More farmers complete cost/benefit analyses with IPM tactics included in analyses ▪ Increase in use of externalities* in cost/benefit analyses ▪ Increase adoption of precision application technology ▪ Farmers increase use of IPM practices ▪ Increase acceptance of less than perfect aesthetics ▪ Change federal policy to decrease costs of reduced risk materials (policy change reports, registration changes, procurement policies) ▪ Implement cost share and/or tax incentives that encourage use of reduce risk products ▪ Implement user fees on higher risk pesticides ▪ Farmers increase their tolerance for pests that have no economic impact ▪ Food processors/packers/ demand/require IPM use by suppliers (e.g. SYSCO) ▪ IPM Certification rewarded with higher returns from the market place Possible Measures ▪ Monitor cost effectiveness of IPM adoption over time ▪ Measure increased government support or incentive funding, programs and participation ▪ Measure increased industry & NGO incentive funding, programs and participation ▪ Monitor changes in grading standards or market acceptance of blemished produce ▪ Measure increased sales of precision application equipment ▪ Measure increased sales of certified produce Sources of Data:	▪ Improve knowledge of efficacy of IPM tactics (including pesticides as a tactic) ▪ Increase knowledge of externalities* associated with pesticide use ▪ Increase understanding of cost-benefit analyses with IPM tactics ▪ Increase understanding of economic thresholds for pests ▪ Increase knowledge of economic benefits of using precision application equipment and technology ▪ Increase awareness that blemish-free produce increases pesticide use. ▪ Increased knowledge of the potential value of IPM Certification ▪ Improve knowledge of pest identification and biology of pest ▪ Improve knowledge of scouting techniques (including pest behavior) Possible Measures ▪ Collect baseline data to measure medium, long term impacts ▪ Use self assessments, pre-test/post-test, and follow-up measurement tools to assess changes in knowledge, attitudes, satisfaction, and awareness Sources of Data:

Target Audiences *Who We Reach*	Activities *What We Do*	Inputs *What We Invest*
▪ Advocacy Groups ▪ Extension ▪ Farmers ▪ Ranchers ▪ Farm & Commodity Organizations ▪ Food Processors & Packers ▪ General Public ▪ Governmental Agencies ▪ Media ▪ Opinion Leaders ▪ Pest Management Consultants ▪ Retailers (big box retailers and food retailers) ▪ State Dept of Ag-Marketing/Pg Department	▪ Field Days ▪ Interagency Cooperation ▪ Media ▪ Non-Formal Educational Channels (trade magazines) ▪ One-on-one Consulting ▪ Partnerships with Commodity Organizations ▪ Print/Electronic Materials ▪ Research & Demonstration ▪ Training—PSEP/PAT ▪ Web Sites ▪ Workshops	▪ Money ▪ People (economists) ▪ Time ▪ Interagency Cooperation ▪ In-kind resources, including infrastructure for information delivery and support

*externalities include: environmental impacts, health impacts, external costs and indirect impacts