IPM Evaluation and Impact Assessment Agenda

Background

The August 2001 GAO report (GAO-01-815) recommended certain changes to the IPM initiative. One of these changes included establishing objectives for IPM programs and developing a methodology for measuring those objectives. Since that time, there has been consensus in the IPM community and within federal agencies to measure three objectives of federally funded IPM programs. These include: 1) improving the economic viability of IPM programs, 2) using IPM as a way to reduce the risk to public health from farming practices, and 3) utilizing IPM as a way to reduce negative environmental impacts of farming practices.

Through the development of a **matrix** we will establish a methodology to measure these new objectives. Four sessions and a half-day roundtable discussion deal with ways to develop this methodology. These four sessions are: **Economic Assessment, Adoption and Pesticide Use, Environmental Assessment and Health Risks**.

Final Outcome: Development of recommendations that federal agencies and IPM coordinators can use to evaluate IPM programs and measure progress of IPM programs over time. This will include both ex post and ex ante impact assessment.

First Day - April 9, 2003

9.00 am – 9.10 am	Welcome and Introduction Ann Sorensen, American Farmland Trust
9.10 am – 9.25 am	IPM Assessment and Risk: Framing the Issues and Vocabulary Scott Swinton, Michigan State University
9.25 am – 9.40 am	Defining and Measuring Reduction in Adoption Risk Tom Green, IPM Institute of North America, Inc.
9.40 am – 10.00 am	Opening Remarks Harold Coble, USDA

- Report on results from the FL meeting in Nov. 2002 on how to address the GAO report.
- Directing speakers to focus on risk reduction goals, speakers need to keep in mind:
- a. how does your work contribute to the goal of measuring reduction in risk?
- b. what makes your efforts unique?

I. Economic Assessment

- 1. Can IPM programs be profitable and how do we measure the benefits and costs?
- 2. How can value be assigned to reducing environmental impacts and health risks associated with farming practices?
- 3. Can economic benefits of IPM on farms be aggregated to reflect economic benefits on a national scale?

10.00 am – 10.20 am	Scott Swinton, Michigan State University

10.20 am – 10.40 am Deana Sexson, University of Wisconsin

10.40 pm – 11.10 am Panel Discussion

Session II: Adoption And Pesticide Use

11.10 am – 11.30 am Bill Coli, Extension Specialist and Adjunct Lecturer

11.30 am – 11.50 am Dennis Keeney, Senior Fellow, Institute for Agriculture and Trade

Policy

11.50 am – 12.10 am Larry Wilhoit, California Department of Pesticide Regulation

1. How do pesticide use trends in IPM programs compare to pesticide use trends for conventional farming.

- 2. Can pesticide use trend data really be used to evaluate IPM programs? If not, what other data could be used?
- 3. What are the advantages and disadvantages of using pesticide use trends to evaluate IPM programs?
- 4. What are the potential problems with developing a nation-wide adoption survey?
- 5. How do you measure a change in grower philosophy? Do you have to apply pesticide use data as a proxy to evaluate IPM programs?

12:15 pm –1.45 pm **Lunch Break**

1.45 pm – 2.20 pm Panel Discussion

Session III: Environmental Assessment

- 1. Presentation on the ways environmental impacts and reductions of potential risks from pesticides can be measured by different environmental indicator systems.
- 2. Discussion about how these systems can best be used at the individual farm level or on a more expansive environmental region level?
 - a. Discussion of scale and aggregation issues.
 - A. How could each environmental indicator system be used in different environmental regions? Could data produced by the environmental indicator system be aggregated to reflect a regional level record of IPM's progress?
 - B. What type of data is best for aggregating data from different environmental regions? Is it subjective data based on expert rankings of risk associated with pesticide properties? Or, is it more objective data such as a predicted environmental concentration of pesticide in a certain environment?
- 3. How should the environmental impact of nutrients be assessed? Can these environmental indicator systems be used to assess the environmental impact of nutrients? And what is the role of biotic measurements of IPM?

2.20 pm – 2.40 pm Charles Benbrook, Benbrook Consulting

2.40 pm – 3.00 pm Joseph Kovach, Ohio State University

3.00 pm – 3.20 pm Robert Luttik, The Netherlands

3.20 pm – 3.30 pm Break

3.30 pm – 3.50 pm Joe Bagdon, USDA - Natural Resources Conservation Service

3.50 pm – 4.10 pm Thomas Greitens, American Farmland Trust

4.10 pm – 4.45 pm Panel Discussion

4.45 pm – 5.00 pm Concluding Remarks

George Norton, Virginia Polytechnic Institute and State University

5.00 Adjourn

Second Day - April 10, 2003

Panel VI: Health Risks

- 1. How do various IPM practices impact human health (i.e. risk from pesticide use, risk from using beneficial insects).
- 2. Can cases of human illness resulting from IPM adoption be collected? Does such data exist at the local level, state level, or federal level (i.e. Centers of Disease Control).
- 3. How can data regarding dietary exposure of pesticides be used to assess health risks associated with IPM?
- 4. Discussion about the differences between the various types of health risks (i.e. farm-worker health risk, consumer health risk, and residential health risk). What are the different ways to measure each health risk? Does one type of health risk lend itself more readily to reflect a national record of IPM's progress in reducing public health risk?
- 5. How can health risk data from different regions and different populations be aggregated to show a national level trend or should they stay at the regional or even the farm scale?

1.00 pm – 1.20 pm David Pimentel, Cornell University

1.20 pm – 1.40 pm Bob Krieger, University of California, Riverside

1.40 pm – 2.00 pm Paul Ruther, Center for Health, Environment and Justice

2.00 pm – 2.30 pm Panel Discussion

2.30 pm – 2.45 pm Break

Discussions

2.45 pm – 4.45 pm Roundtable Discussion

H. Coble and E. Ortman as facilitator

- Evaluation of Matrix: Integration of assessment systems from adoption, health risks, environmental impact measurement and profitability impacts into one **integrated approach**.
- Discussion on incorporation of **aggregation needs** (depending on the report from FL working group meeting in November (Mizell, et al.)
- Development of **guidelines** for **data needs** that IPM practitioners and coordinators need to collect for different evaluation purposes

 $4.45\ \text{pm} - 5.00$ Conclusions and Wrap Up: Where we were and where we need to go, Harold Coble, USDA

5.00 pm Adjourn