

## Summary report of the MSU IPM/ICM Planning Session Kellogg Center, MSU Campus, Dec. 16, 2003

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**Note on process.** Topics for the morning planning session were proposed by the MSU IPM/ICM core program staff with advice from the Project GREEN coordinator (G. Lemme) and MSUE agricultural program leader (D. Buhler). Our moderator John Fisk (Food Systems and Organizational Consultant), formed questions to engage the group. Morning notes were compiled by the moderator.

Morning notes were further synthesized into main themes and recommendations by an afternoon group. This group was composed of morning participants that represented a broad array of interests and graciously agreed to work through the afternoon. Dave Trinka and Mike Brewer were assigned to develop a report to pass to the afternoon group for concurrence.

This summary report is being sent to all participants and to MSU administrative leaders responsible for MSU IPM/ICM oversight. A follow up feasibility assessment has been approved, with the objective to prioritize recommendations and integrate recommendations with the national IPM roadmap. The follow up team will be composed of MSU administrative leads, an MDA representative, and several non-MSU IPM/ICM experts from USDA, industry, and other university systems. Their assessment will be appended to the report. All documentation will be posted at the MSU IPM Program website:

(<http://www.ipm.msu.edu/strategic.htm>).

**NOTE of clarification on applicability of report.** It became clear that the topics and questions presented generated a broad-based discussion about MSU IPM/ICM outreach services, including Diagnostics, local grower meetings, and web-based information resources like CAT Alerts and Department web sites. Below the term 'MSU IPM/ICM team' refers to those contributing to the suite of MSU IPM/ICM services. 'IPM/ICM Program' refers specifically to the staff hosting the morning event.

**Major themes and recommendations.** The following were identified as main themes and recommendations from the attending the MSU IPM/ICM Planning Session, December 16, 2003. These items bridge across topics and questions entertained in the morning discussion and synthesized in an afternoon. Detailed comments follow. A follow up feasibility assessment has been approved, with the objective to prioritize recommendations and integrate recommendations with the national IPM roadmap.

**Clientele identification and service.** Recommend service to two categories for full development of program activities (Producers and Decision-makers) and one category to focus on delivery of information briefs (Consumers/Community). Producers form the core clientele group. Information links should expand among units, programs, AoEs, and departments contributing to IPM/ICM outreach services. Working with partners is essential to communicate successes and needs to decision-makers. The current focus in assisting the IPM Alliance build relations with federal agencies, particularly EPA in response to the impacts of the Food Quality Protection Act, is appropriate. Key expansion of this effort is appropriate, such as interaction with state decision-makers. To increase IPM awareness effort, the MSU IPM/ICM team should compose existing MSU IPM 'success stories' into information briefs that show currently understood benefits that link IPM success to issues such as environmental quality.

**Partnership/Coalition building.** MSU provides a suite of IPM/ICM outreach services by a broad-based MSU IPM/ICM team. Recommend smooth connectivity across IPM/ICM outreach services. It was recognized that services provided by other agencies are part of the statewide and regional IPM/ICM effort, and connectivity to these groups is desirable. Good communications with partners in the private sector and agency partners are of great value in maintaining public support for base services and in identifying funding sources for special initiatives. A comprehensive annual reporting document should be readily available to the public.

**Emphasis area critique and suggestions.** Training effort: This emphasis area should stress educational approaches to increase level of understanding of principles and information-intensive IPM tools, which is essential in increasing good IPM decision-making. Web services: The need for integration of services and education material that MSU offers is essential; strive to make information and education wanted by the public flow among units, programs, and departments. Sustainable pest management: The MSU IPM/ICM effort should build on this concept. Linkage to biological control, the invasive species issue, and other ICM issues are appropriate.

**Program Input.** A more formal advisory structure is recommended and should provide broad comment to the full MSU IPM/ICM team that provides IPM/ICM outreach services. Broad representation is essential. Listening sessions should continue; consider some combination of using existing meetings and occasional special events like the current Planning Session.

## Detailed comments on major themes and recommendations.

### Clientele identification and service

Recommend service to two categories for full development of program activities (Producers and Decision-makers) and one category to focus on delivery of information briefs (Consumers/Community). Levels of engagement differ among the clientele groups, with service tailored for each, differing in depth and breadth.

**Producers.** The MSU IPM/ICM team provides good base levels of service centrally. CAT Alerts and Diagnostic Services were recognized as base services that benefit from a core contributing staff (e.g., IPM/ICM and Diagnostic Services program staff) and key support from the larger MSU IPM/ICM team. Locally, MSUE agents are key in delivery of tailored learning opportunities and transitioning learning to action. Central and local services feed off each other, and both are needed to provide quality education to producers. It was recommended that information links expand among units, programs, AoEs, and departments contributing to IPM/ICM outreach services. As an example, CAT Alerts and Diagnostic Services should serve as important entries to the suite of MSU pest management services. Consistent administrative and public support is necessary to maintain base levels of service and to link outreach services across units, programs, AoEs, and departments.

**Decision-makers.** The current focus in assisting the IPM Alliance build relations with federal agencies, particularly EPA in response to the impacts of the Food Quality Protection Act, is appropriate. Well considered expansion of this effort is appropriate to touch other important audiences and other commodity groups. Interaction with state decision-makers may be of particular value (suggestions: legislator/state staffer day). This should be a joint effort of the entire MSU IPM/ICM team and be consistent with existing CANR efforts.

**Consumers/Community** (originally separate identification of Consumers, Environmentalists, Local Public Schools and Agencies was recognized but condensed into this one category). While the MSU IPM/ICM team provides services primarily focusing on producer needs, the team needs to engage the broader consumer/community group in an IPM awareness effort. As a base activity the MSU IPM/ICM team should compose existing MSU IPM 'success stories' into information briefs that show currently understood benefits that link IPM success to other issues such as environmental quality.

### Partnership/Coalition identification

Good communications and joint activities with program affiliates, partners in the private sector, and agency partners are of great value in maintaining public support for base services and in identifying funding sources for special initiatives.

**Program affiliates and linkage.** The public benefits from bundled services. The general topics and emphasis areas presented in the morning session generated discussion about several MSU IPM/ICM outreach services that benefit from a core contributing staff (e.g., the IPM/ICM Program, Diagnostic Services, IR-4 Program) and key support from the larger MSU IPM/ICM team, which consists of individuals from many administrative units. Smooth connectivity across IPM/ICM outreach services is necessary for full public support. It was noted that there has been good improvement in this linkage among programs, units, and departments in recent years. It is recommended that MSU continue to improve on bundling services, with the goal that a client can smoothly move among MSU IPM/ICM pest management services.

Centrally, CAT Alerts and Diagnostic Services serve as important entries to MSU pest management services. The AoE teams and personnel from MSUE and Departments provide critical support to these services. Locally, MSUE agents are key personnel that serve the very complementary function to transition information into community action. Contributions of participating staff and faculty in a MSU IPM/ICM team effort should be acknowledged and supported by administrative units. It is the suite of pest management services that should be most visible to the public. Initiatives to expand connectivity require a combination of commitment from units, programs, AoEs, and departments, and strategic administrative support.

**Private sector partners.** Good communications and interactions with commodity groups and other interested parties is of great value in maintaining public support and in identifying funding sources for special initiatives (see also *Program Input* section). To aid communications, brief success stories with specific economic and environmental benefits, can be tailored to specific commodity groups. A more comprehensive annual reporting document should be readily available. Through this process, commodity representatives and other engaged groups can increase their effectiveness in communicating the role, successes, and needs of the MSU IPM/ICM team to decision-makers.

**Agency partners.** It was recognized that services provided by other agencies are part of the statewide and regional IPM/ICM effort. The MSU IPM Program has close relationships with MDA, EPA, and USDA NRCS. Other agricultural and environmental quality agency partnerships should be more fully developed (DEQ, DNR, USFWS). Key personnel contacts should be established and invited to participate in program input. The linkage of IPM efforts to environmental stewardship fits well with expansion of agency partners. This can be balanced with service to producer clientele by emphasizing environmental quality and food safety benefits gained by consumers and community when IPM is used in agricultural systems (see *Clientele identification and service, Consumers and Community* section).

**Regional partners.** Regional strategies are still evolving, although links with the recently established regional IPM Center and Diagnostic Network can be explored now. Strong connection of regional effort with the state and local effort is important. Regional partner services need to fit in the bundled service concept. Regionalization of University effort is important to consider and will happen.

**Emphasis area critique and suggestions** (based on morning comments principally, broadly discussed during the afternoon session)

**Training effort (See description on page 4):** This emphasis area should stress educational approaches to increase understanding of principles and go beyond presentation of facts. Implementation of IPM is information-intensive and requires good decision-making capability at the grower level. Local MSUE agent activities are important (see *Partnership/Coalition identification, Program affiliates and linkages* section). Tailoring core modules to different audiences may provide the appropriate link to MSUE agents who are best positioned to do local tailoring (see also *Clientele identification and service* section).

**Web services (See description on page 4):** Strive to make information and education wanted by the public flow among units, programs, AoEs, and departments. These comments occurred throughout the morning and afternoon sessions, and are not just in reaction to the emphasis area document presented (see *Clientele identification, service, and interaction, Program affiliates and linkages* section). Web service is one mode of increasing connections.

**Sustainable pest management (See description on page 5):** The MSU IPM/ICM team should build on this concept. Biological control (noted in morning comments) can be a specially recognized part of the sustainable pest management emphasis area, or can be a special emphasis itself. Invite formation of multi-disciplinary coalitions to identify and secure funding opportunities.

### **Program Input**

**Advisory structure.** A more formal advisory structure is recommended and should provide broad comment to the full MSU IPM/ICM team that provides IPM/ICM outreach services. Broad representation within and outside MSU is essential (see *Partnership/Coalition identification* section). An advisory group should be provided a direct unfiltered link to administration. Through this process, commodity representatives and other engaged groups can increase their effectiveness in communicating the role, successes, and needs of the MSU IPM/ICM team to decision-makers.

**Listening sessions.** Listening sessions, similar to the December 16 meeting, should continue. Consider taking advantage of existing meetings and occasional special events like the current Planning Session. For effective listening sessions, remember to give success stories briefs, but only as a means to generate discussion. The aim is to listen. These listening sessions will likely stimulate comment about the suite of IPM/ICM outreach services provided by MSU, just like the current Planning Session. This is a benefit, although it is important to have broad acceptance of these sessions by MSU units, programs, AoEs, and departments that contribute to IPM/ICM outreach services.

**General Comments.** Provided here are general comments from the morning session that occurred a minimum of three separate times across discussion topics (information in parentheses are related comments from the afternoon session).

Be inclusive in planning and programming (important to engage multiple clientele groups, producers are your core clientele for advanced subject matter programming, inform the broader community of the value of IPM, see *Clientele identification and service*)

Link to other MSU pest and crop management activities (the public benefits from the bundled services and desires smooth connectivity among units, programs, AoEs, and departments that contribute to IPM/ICM outreach services, see *Partnership/Coalition identification, Program affiliates and linkages* section)

Staffing/programming shortfalls occur in vegetables, small fruit, and field crops, particularly in reference to the Integrator concept (afternoon session did not specifically speak to personnel-specific shortfalls)

Maintain and increase avenues to obtain advice (develop an advisory structure, linked with other programs, see *Program Input, Advisory Board* section)

**Attending** (morning session): Fifty people attended the morning planning session, including 4 MSU CANR/Department administrators, 11 department staff/faculty, 4 MSUE staff, 5 state and federal agency staff (MDA, DEQ, EPA, NRCS), 7 commodity representatives, 7 from the private sector (3 growers and 4 agribusiness), and 10 hosting IPM/ICM staff: J. Andresen, G. Bird, J. Brienling, M. Brewer, D. Brown-Rytlewski, D. Buhler, M. Bulatovic, R. Calhoun, T. Dekryger, D. Elsner, M. Elzinga, D. Epstein, J. Fisk, R. Freed, E. Grafius, M. Gray, L. Gut, C. Guza, R. Hammerschmidt, C. Harris, T. Holloway, B. Hughes, A. Irish-Brown, R. Isaacs, L. Jess, K. Karnemaat, J. Kells, J. Koan, D. Krauskopf, R. Lamb, J. Landis, R. Lemme, R. Longstroth, P. Lound, G. Manley, D. Mutch, T. Novak, J. Nugent, L. Olsen, K. Reinholt, R. Rosenbaum, D. Rossmann, R. Shaffer, T. Smith, H. Stevens, D. Trinka, B. vanTil, M. Whalon, J. Wise, D. Yockey.

**Attending** (afternoon session): D. Buhler, E. Grafius, A. Schilder, M. Longstroth, D. Rosseman, D. Mutch, all MSU; R. Rosenbaum, MDA; R. Shaffer, USDA NRCS; T. Smith, Mi Turfgrass Foundation; D. Trinka, Michigan Blueberry Growers; and B. vanTil, EPA.

## Descriptions of emphasis areas

### 1) Emphasis area: IPM/ICM Training

#### Current situation

IPM/ICM training is often a part of the basic structure of many of the programs that MSU Extension offers. However, there is an increasing demand for IPM/ICM information and training as a distinct product by traditional and non-traditional clientele including possible extension beyond Michigan audiences. Besides producers, this clientele includes governmental agencies, crop industry members and the public. We anticipate there may be a significant demand for IPM/ICM information and training if the material is targeted toward the needs of specific audiences. Such products may be specifically developed for an identified audience or may be repackaged information that has already been developed. The demand for these products is such that if they are correctly produced and marketed, they could represent a significant income stream not only to the IPM/ICM program, but also to the educational programs of individual agents or teams.

Regardless of commodity, needs for educational programs include the following issues:

- Make subject matter of programs timely with quick turn-around so that information is available when it is needed.
- Create programs that will not become dated quickly.
- Modular forms of materials – i.e. specific modules that could be updated to reflect changes in pesticides or other information as needed.

Examples of current programs and projects in IPM training include:

- Individual programming efforts by agents such as grower meetings and code-a-phones.
- Group activities, projects, and workshops such as those planned by AoE's with industry groups.
- Publications including pocket guides, bulletins, reports, and newsletters.

#### Proposed action for advancement

IPM/ICM information is universal within programs developed by other MSU groups and AoE teams; therefore, integration will become more critical to avoid duplication of effort. As IPM/ICM agents and integrators, we should bring together various groups and departments to create educational programs that mesh our efforts and avoid duplication. This approach may open the door to new and innovative funding sources as well. We also want to identify what our clientele want and work with representatives of nontraditional audiences to determine where ICM/IPM learning experiences would be beneficial. Our goal will be to develop specific cost-effective programs/learning modules derived from archived materials that can be regularly updated and readily available to educators. Individuals may adopt modules for a program or adapt the archived materials. In this way, marketing programs for a targeted group becomes more feasible. The programming is also better suited for regional efforts if that should become a priority. The result will likely be more teamwork and less individual effort, development of regional programming, and more options for electronic delivery of information (distance learning, web portals, CD tutorials). This effort will benefit from development of IPM/ICM web services described in the next section of this document.

Prepared by Amy Irish-Brown, Diane Brown-Rytlewski, Dean Krauskopf – November 2003

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### 2) Emphasis area: IPM/ICM web services

#### Current situation

Growers are increasingly turning to the Internet for information to enhance their production. In Michigan, farm access to the Internet increased from 28 percent in 1999 to 48 percent in 2001 according to a USDA survey (USDA NASS 2001). MSU has a national reputation as a leader in IPM/ICM research and extension in a variety of crops. There is a rich diversity of pest and crop-management information online generated by Michigan State University researchers and Extension specialists, but unfortunately it is scattered throughout programs and departments. There is no comprehensive tool or site that collects all of MSU's information on pest and crop management, making it difficult to find the information resources specific to one's needs or questions.

#### Proposed action for advancement

We propose to develop two web services with components transferable to CDs or DVDs that will interest this growing audience. The first is to develop a web resource that quickly provides current and specific pest and related crop information to those working in agriculture and the general public. In 2004, MSU Extension will initiate a web portal with the capability to offer readers customized information that is easier to keep current. The MSU IPM Program proposes to partner with several MSU programs and departments to structure MSU's pest and related crop information for easier access through the portal.

The other web service would offer interactive learning modules to support training (see IPM/ICM training emphasis area). These programs could be developed to meet the individual needs of a company; provide interaction with specialists nationwide; provide

a flexible, self-paced format for growers or employees to access from a convenient location; help reduce costs for the educator, participant or company; network people together with similar interests; and possibly allow participants to earn pesticide recertification credits.

Nationally the Extension Committee on Organization and Policy (ECOP) is developing an e-Extension initiative to advance the science and practice of engagement and outreach of land-grant universities to the people they serve. We will design our web services to cooperate with this effort to the greatest possible extent.

Prepared by: Jill O'Donnell, Dean Krauskopf, Joy Landis – November 2003

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### **3) Emphasis area: Developing and implementing sustainable IPM/ICM practices**

#### **Current situation**

To address tomorrow's complex problems we need to be better at integration and systems thinking. For a viable future, whenever possible IPM/ICM must move further into biological alternatives to pesticides that have strong sustainable attributes that enhance farm health broadly. Current IPM Program activities have focused on soil quality to manage weed seed banks and soil-borne diseases. More recently, we are striving to integrate enhancement of other beneficial organisms, such as surface and aboveground natural enemies of pests, into this suppression system.

#### **Proposed action for advancement**

Our long-term goal is to emphasize multiple tactics for pest suppression and relief of other plant stressors that are compatible with each other. These tactics should be regenerative biologically or through their insertion into standard farm practices, should be non-disruptive to farm and environmental health, and should minimize expenditure of nonrenewable energy sources. Multifunctional tactics for sustainable systems are often built into the farm system and ideally enhance other farm practices and require at most modest maintenance after initial implementation. Examples of this level of integration are establishing cover crops and other accessory plants that suppress pests and enhance soil health; and the incorporation of multiple crops into rotations to reduce pest impact and stabilize farm income. Reduced-risk pesticides can be part of a sustainable system if products are chosen and used as selectively as possible to target a key pest problem while minimizing environmental impact.

Michigan agricultural systems afford great opportunity to work in this area, and the need for such sustainable approaches has been documented ([www.sare.org](http://www.sare.org), <http://attra.ncat.org>, [www.nal.usda.gov/afsic](http://www.nal.usda.gov/afsic)). The current IPM/ICM program emphasis in cover crops is an example of a tactic that can cut across commodities to address many of these issues (<http://kbs.msu.edu/extension/covercrops>). The cover crop effort has been aided by program linkage to MAES and MSUE (partnership for personnel resources) and the MSU Sustainable Agriculture Program (an internal grant source). Within our current structure, we need to increase visibility of the breadth and depth of interest in IPM/ICM techniques that have strong sustainable attributes. Increased exposure of these activities in newsletters and other publication and training efforts is one targeted strategy that can be attained with existing resources. Future intensive programming on developing and implementing other sustainable practices is needed and will require continued expanded partnerships and external project resources.

Prepared by: Dale Mutch, Mike Brewer – November 2003