Globalizing IPM

The Big Rock Approach

Global IPM:

- Its overarching global relevance today,
- To address and solve problems at all levels - global, regional, continental, on-farm, or anywhere in the food chain or marketing chain.
- Its outcomes and impacts and their sustainability

Global Programs

PARTNERSHIPS AND INITIATIVES WHOSE BENEFITS CUT ACROSS MORE THAN ONE REGION, AND WHERE PARTNERS:

1. Agree explicitly on objectives
2. Establish a new, formal or informal, organization
3. Generate new products or services
4. Contribute dedicated resources to the program.

IPM has been described as:

A rope of many strands…involving several ASPECTS:

- Biological
- Economic,
- Environmental, and
- Educational

The greatest agricultural transformation in history occurred since World War II

- Unprecedented crop yield gains
- Agriculture and food production became more management and knowledge intensive
- Crop spacing was much closer, plant populations were much higher
- Production was more chemical intensive
- In some specific cases, increasing dependence on biological control

Modern crop management

- Requires more knowledge,
- More precision,
- More exchange of information and employing of scientific developments, both regionally and globally

Farmers' fields and their problems

- Not all fields in the world have an insect problem
- Not all fields in the world have a disease problem,
- HOWEVER: All fields in the world have a weed problem! And yet Weed Science continues to be a poor stepchild in IPM circles. Is this likely to change?

Pressing global or regional problems that need coordinated efforts and solutions

- Increasing resistance of pests to chemical control
- Improving genetic resistance of crops to pest attack
- Improving diagnosis of problems:

  The pest, what is known about it, from whence it came; chances for its continuing spread, and at what pace, etc.

Problems continued:

- The need for databases on pests as biological entities; their rates of spread and why; the need for sound information from places where the pests have caused damage or problems;
- Organized efforts to control or hold down their spread,
- Reaching common agreement on the status of the important problems, and their control.

Moving beyond the single commodity approach in IPM

- Participatory methodologies and approaches that work,
- That allow all parties to contribute, learn, grow and lead in their relevant areas.
- IPM CRSP: science-based, practical field testing and ground-proofing of ways to tackle existing or emerging pest problems.

Evaluation and Impact Indicators

- Address economic efficiency and environmental and health-related sustainability of IPM
- Measure reductions in pest management costs as a proportion of total crop production costs, as well as reduced rejection of produce at ports of entry
- Identify areas experiencing significant pest problems and/or pesticide abuse

Evaluating Impact, continued

- IPM approach requires an appreciation of its multiple goals and a suitable methodology for assessing its impact.
- A number of international organizations support IPM, but there is little consensus on monitoring and assessment standards for its economic, social and environmental impacts, including the assessment of farmer IPM training.
- Lessons to enhance IPM effectiveness are needed across major sectors: e.g., agriculture, health, and the environment.

The Integral Role of Science in IPM

- Is farmer participation always necessary?
- The biological control of the cassava mealybug - the most successful IPM program for resource-poor farmers in Africa - had no farmer input. Science led the way in this effort, with estimated benefits of almost $10 billion from the research.
- Research must help answer the what, why, how, when and where of IPM, in partnerships that produce results.

What are some big rocks in IPM?

- Strong science base for PIPM
- Participatory Appraisals by PIPM teams
- Database development and utilization
- Technology transfer
- Evaluation and impact analysis