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