

Assessment and Implementation of IPM in Schools: **Practical Implementation**

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- Questions that **MUST** be asked **AND** answered for successful implementation
- Practical steps for implementation
- Sustainable Management for IPM
- Transferring the IPM innovation

Questions that **MUST** be asked **AND** answered for successful implementation:

- What action must be taken?
- Who will take the necessary action?
- Do they have the necessary resources to take action???

THE ACTION TO BE TAKEN: diffuse IPM

THE INNOVATION/DECISION PROCESS

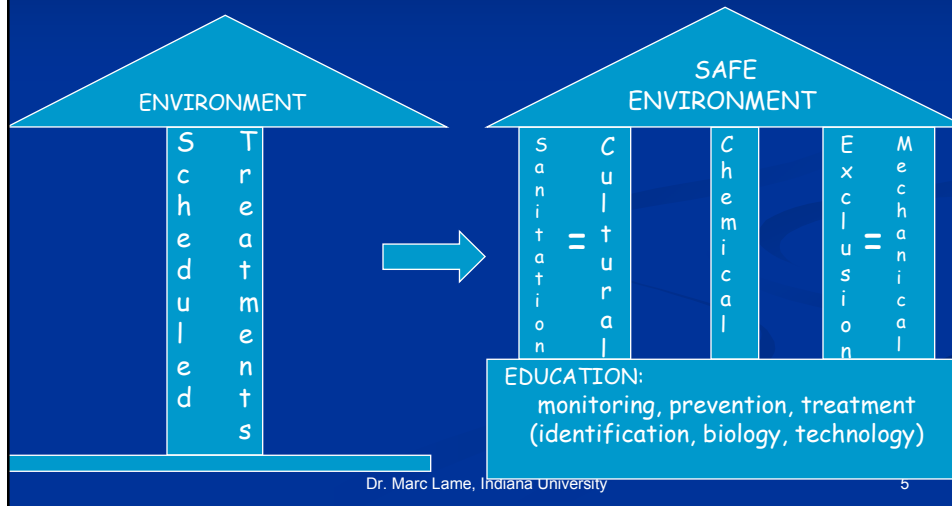
MODEL ADAPTED FROM ROGERS 1983



- Management Situation
- Audience
- Message
- Media
- Feedback

Ask where political, program and resource management fits into each situation and audience

A Shift to an IPM Program



Who will take the necessary action? - MISSION ORIENTATION

- USEPA
- USDA - Extension
- USHHS - CDC
- Not - for - profit organizations
- Industry
- School Administrations

Extent of Change Agents' Promotion Efforts

- Implementation process
- "up front" investment
- Ability to compete

Problems/promise of current change agents

All have little to no expertise of "change"

- USEPA - \$, travel and "bean counting"
- USDA/Extension - 50+50=150?, mission
- USHHS/CDC - \$, travel, expertise
- Not - for - profit organizations - expertise, \$, travel
- Industry - motive (branch level), expertise
- School Administrations - expertise

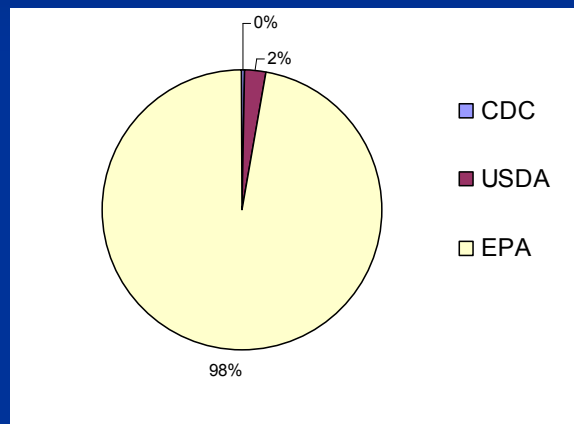
Thus, Partnership = success!!!

- **38%** of land grant institutions have IPM in Schools programs ...loosing ground?
- **38%** have informational programs (e.g. - websites, manuals, fact sheets, etc.)
- **26%** have interactive programs (training sessions, CEUs)
- **14%** have diffusion programs (information, interaction AND demonstrations with recognition programs)

(Percentages based on 50 states)

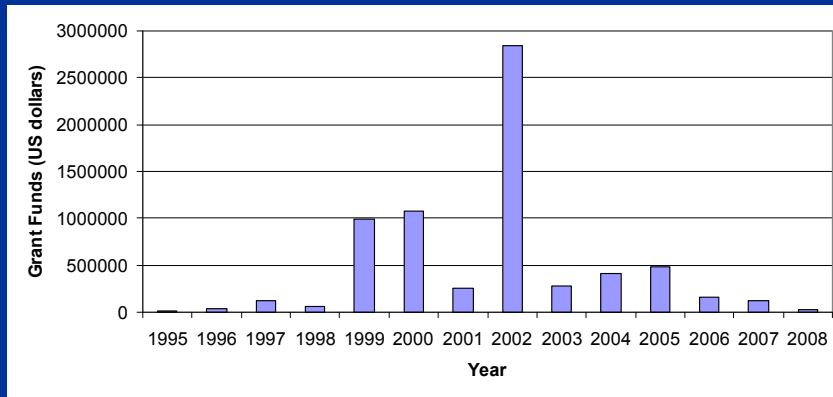
Do they have the necessary resources to take action???

Total grant funds for IPM in schools and daycares by agency from 1995 to 2008.



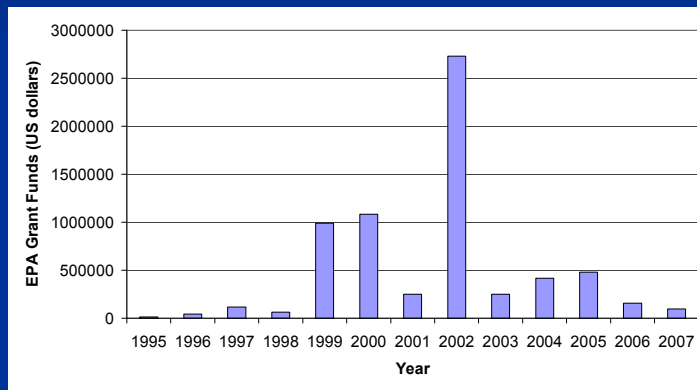
Do they have the necessary resources to take action???

Total grant funds for IPM in schools and daycares by EPA, USDA, and CDC.



Do they have the necessary resources to take action???

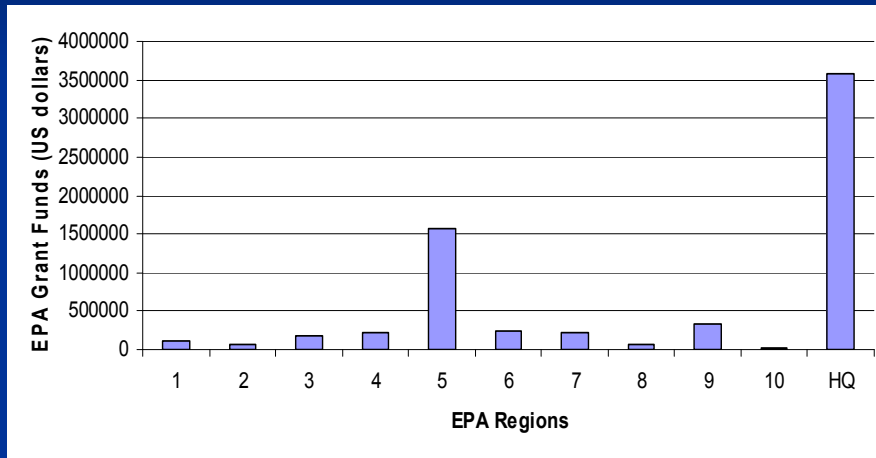
Total EPA grant funds by year for IPM in schools and daycares.



Do they have the necessary resources to take action???

EPA grant funds by region for IPM in schools and daycares from

1995 to 2008



Practical steps for implementation

- Demonstrate IPM to a model school district
- Develop a sustainable model program
- Transferring the IPM innovation to the state, world and beyond!

Demonstrate IPM in a model school district

- Pick a real model for transferability - The best managed schools with the worst pests
- "Paint a picture" of the current pest management - or lack of...
- Prioritize your recommendations - "IPM is a process, not a miracle"
- Train the school community that IPM is not more on their plate - "Do what you are doing now, just think pests."
- Evaluate and Nurture

"Paint a picture" of the current pest management - or lack of...

- Assess the pest problems and "Conducive Conditions"
- Assess the pest management
- Assess the costs of pest management

Pest Vulnerable Areas

- Kitchen, pantry and cafeteria
- Dumpsters
- Teachers lounge
- Custodial closets
- Special Ed/classroom/nursery
- Bathrooms
- External grounds

What do these areas have?

Food / water / shelter!

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And what can schools do best? Eliminate

Conducive Conditions:
those things that
attract pests and allow
them to be where you
don't want them.

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Marc defines the Pest Management Professional as an:

“Diagnostician/educator”



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PMP - “Diagnostician”

- Your “professional” relationship
 - History
 - Inspection for conducive conditions
 - Inspection for pests
 - ID and biology
 - monitoring



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Time - By the minute (square ft. bids are not appropriate in schools)

- Elementary School average = 30-45 min/month
- Middle School average = 45-60 min/month
- High School average = 60-120 min/month



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IPM Training

- pest ID
- Pest Biology
- conducive condition ID using "ecological equivalents" and remediation
- All management alternatives ...and their safe use!



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What is IPM?

- ☞ Don't attract Pests
- ☞ Keep them out
- ☞ Get rid of them, if you are sure you have them with the safest, most effective method(s)



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Prove IPM is compatible with the district's current operations

- Doing what you do now---just think pests!!!
 - Security = monitoring
 - Energy conservation = exclusion
 - Sanitation = nothing to eat
 - Clutter control = no place to live

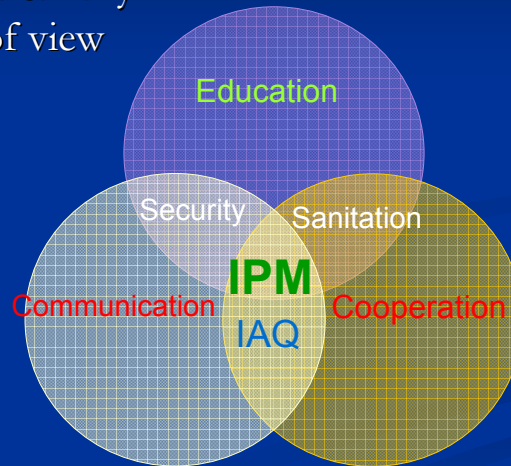
Food Water Shelter



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IPM is the center of all operations

At least from my point of view



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Sanitation

- Eliminate food, water and harborage for pests



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Exclusion

- Eliminate pest entry points



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monitoring

- Doing what you do now---just think pests!!!
 - Is there a problem?
 - How big is the problem?
 - Who needs to know?

COMMUNICATION!!!

- Who better to monitor than the inhabitants of the facility???

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Monitoring



- The only way to justify pesticide application
- Allows for proper diagnosis



Justified Applications

- Treat every pesticide like it might be banned...be precautious!
- Timing and Coverage based on children and target pest

Develop a sustainable model program

- Evaluate
- Confirm they make the right decision to adopt IPM - plaques, press, leadership

Up Front Investment

- **Critical Mass** - "occurs at the point at which enough individuals have adopted an innovation so that the innovation's further rate of adoption becomes self-sustaining" (Rogers, 1983) - the initiation of the exponential growth phase

What we measure - "pest management is people management"

- Diffusion
 1. IPM STDs - training, Pest Press, pest sighting logs, monitoring stations, no preventive treatments
 2. Membership in statewide coalitions
- Causes of pesticide use - pest perception and complaints
- Pesticide use - annual # applications/pilot school

Spanning 10 Years, 7 States and 5 EPA Regions:

- 71% Reduction in Pesticide Applications
- 78% Reduction in Pest Complaints to School Administrations

ARGUMENT -1997 ESA Meetings:

- Pests are defined by humans--not nature. Pest management is not confined to industry (agricultural or urban/structural). "Insects can be managed, but management is people oriented..." (Metcalf and Luckmann, 1975).
- IF you don't do it someone else will...

Questions???

