



Regulatory, Commercial, and Social Elements in the New IPM Model

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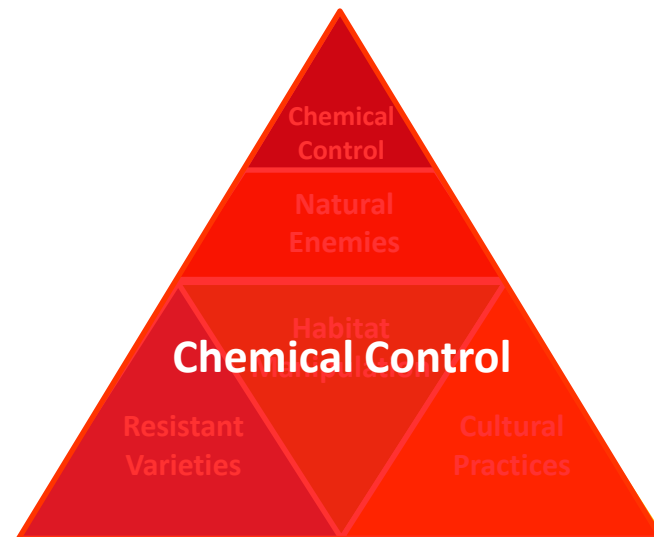
and ucanr.edu/pestnews



IPMinfo app

Traditional IPM model

“Integrated pest management (IPM) is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and non-target organisms, and the environment.” **UC IPM**



Traditional IPM model-Management aspect

Host Plant Resistance

- Resistant/tolerant varieties
- Other varietal traits

Cultural Control

- Adjusting planting dates
- Modification of irrigation or nutrient management
- Use of trap crops, crop rotation, etc.

Biological Control

- Conserving natural enemies
- Releasing predators or parasitoids

Behavioral Control

- Baits or traps
- Mating disruption

Physical/Mechanical Control

- Netting and other exclusion options
- Vacuuming

Microbial Control

- Entomopathogenic microorganisms
- Microbial metabolites

Chemical Control

- Natural compounds from plants or other sources
- Synthetic chemical compounds

New IPM Model



New IPM Model

- Economically viable
- Environmentally sustainable
- Socially acceptable

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Issues



The New Integrated Pest Management Paradigm for the Modern Age

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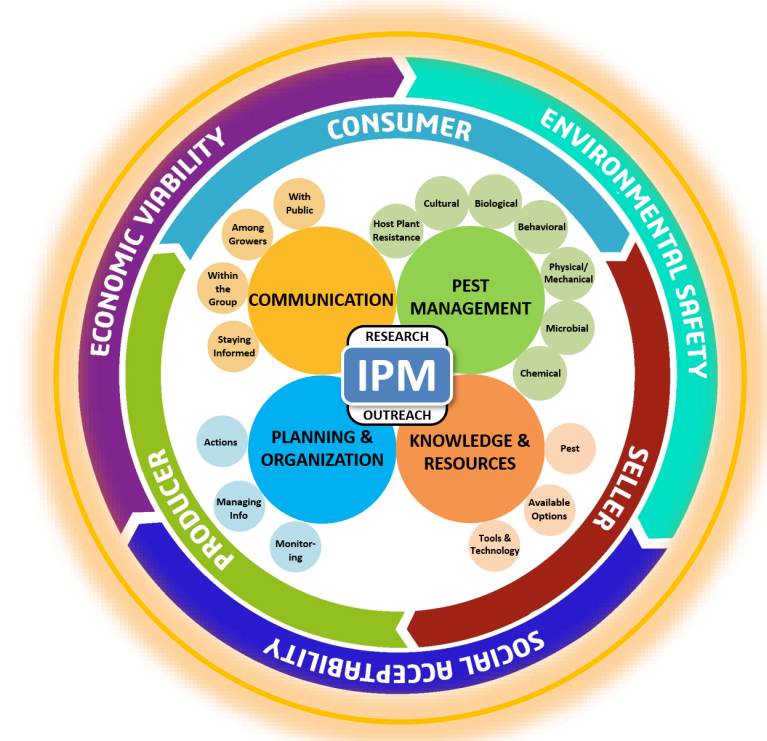
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Regulatory element

- Registration of pesticides or crop protection technologies
- Regulation of their use: when, where, how, and how much?
- MRL, REI, PHI, and others
- Advisor and applicator licensing
- Corrective actions



Commercial element

- Cost of various control options and their implementation
- ROI for the farmer
- Environmental cost
- Producer-retailer-consumer



Social element

- Affordability for everyone



Conventional (\$\$)



Organic (>\$\$)

Social element

- Affordability for everyone



Conventional (\$\$)



IPM-based (~\$\$)



Organic (>\$\$)

Social element

- Affordability for everyone
- Food wastage: Logistics, marketing, or consumer preference



Social element

- Affordability for everyone
- Food wastage: Logistics, marketing, or consumer preference



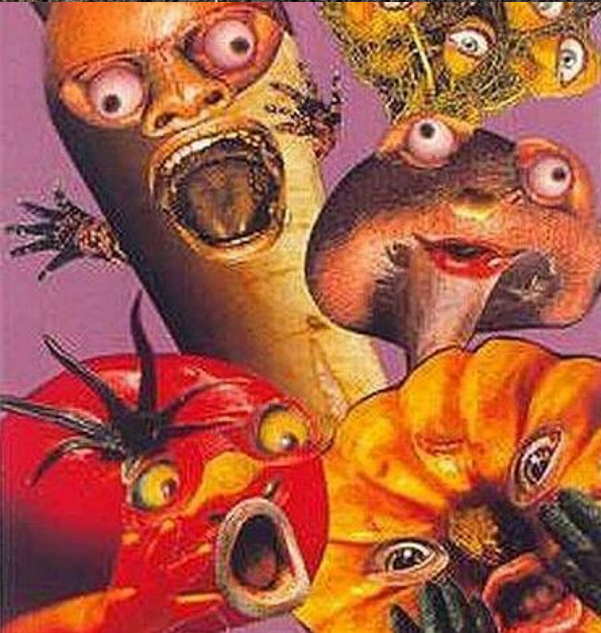
Social element



Social element

- Affordability for everyone
- Food wastage: Marketing and consumer preference
- Inadequate public education: Chemophobia and false information

Social element



New IPM Model



An IPM-based System



Quiz

- The new IPM model promotes economically viable, environmentally sustainable, and socially acceptable crop protection and production approach

A. True

B. False

Quiz

- Consumer education and choice can have a major impact on sustainable food production
- A. Yes
- B. No

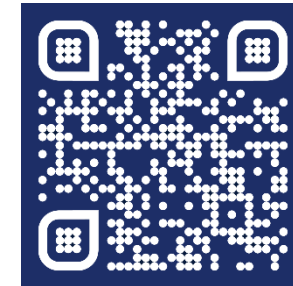
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