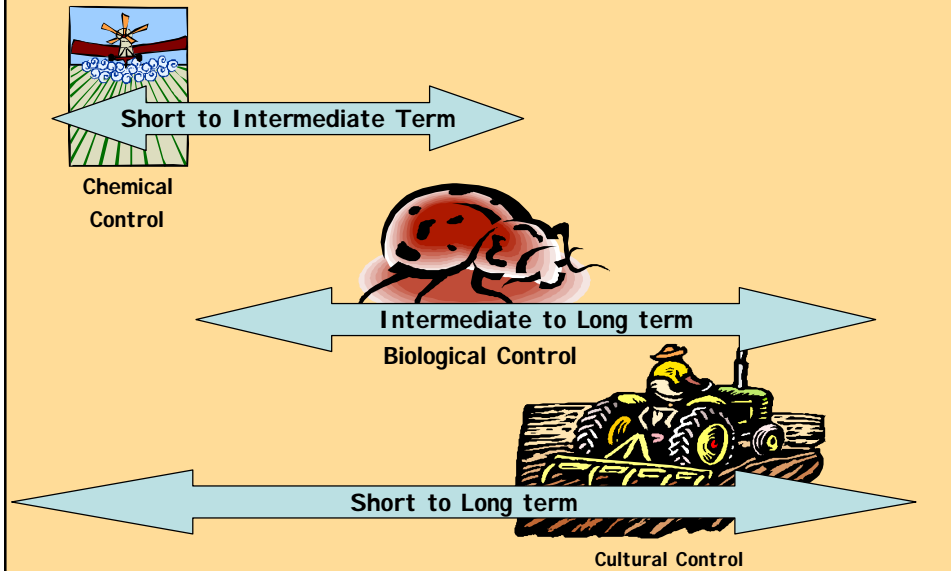
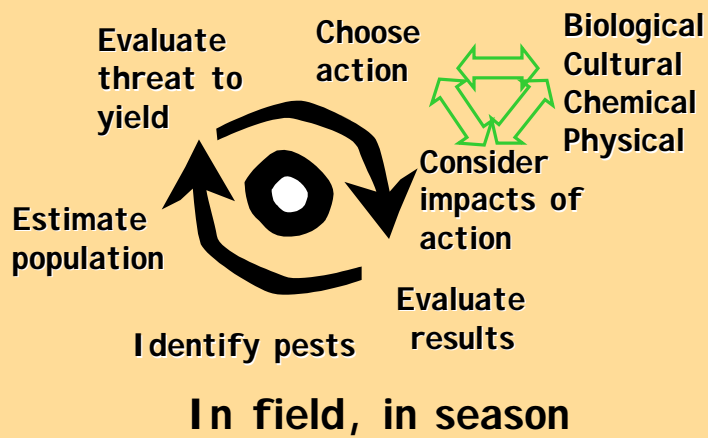




Time Scales of IPM Management Approaches



Making Pest Management Decisions





Chemical Control



- 🐛 Why use chemicals?
 - 🐛 Protect investment now!
 - 🐛 Threat too great
 - 🐛 Risk of loss greater than cost of treatment
- 🐛 How to decide if treatment needed?
 - 🐛 Sample frequently
 - 🐛 Evaluate threat to crop
- 🐛 Pesticide options
 - 🐛 Narrow vs. broad spectrum
 - 🐛 Reduced risk to humans & environment



Pesticide Chemistry: Selective vs. Broad Spectrum



- 🐛 Targeted is good
 - 🐛 Gets only the problem pest
 - 🐛 Preserves natural enemies
 - 🐛 More "surgical"
- 🐛 Too selective can lead to:
 - 🐛 Tank mixes
 - 🐛 Increased applications over a season
 - 🐛 Increased costs, more products, more fuel for applications
 - 🐛 Scheduling conflicts
- 🐛 Mating disruption



Regulation

- 🐛 License required to write pesticide recommendation
- 🐛 Written recommendation required for use products of most pesticides
- 🐛 Pesticides are highly regulated
 - 🐛 Label registration process
 - 🐛 Use according to label



The IPM Continuum: Moving Toward Safer Alternatives

- 🐛 Alternatives are available for some pests on some crops
- 🐛 Farmers are not in the business to manage pests but to produce food, IPM is part of doing business
- 🐛 Safer to whom?
 - 🐛 What risks are we discussing, health, economics, rural communities
 - 🐛 Safety to whom at what risk to others?



Concluding Remarks



- 🐛 IPM & food production is ecosystem based
- 🐛 Change one variable it can have unintended consequences in other parts of the system
- 🐛 The ideal outcome is to have an appreciation of this balance between the need for abundant, affordable, nutritious and safe food while minimizing side effects

Thanks for your interest

