


# Fruits and Vegetables for Raised Beds

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# Before we get started...

- 
- Soil test!
    - Every year when making amendments
    - 2-3 years for maintenance

SAMPLE FORM		SOIL SAMPLE INFORMATION		VCDARS AGRONOMIC DIVISION	
<p>Sample ID: _____</p> <p>Location: _____</p>		<p>Client Name: _____</p> <p>Address: _____</p>		<p>Phone: _____</p> <p>Fax: _____</p>	
<p>Sample Type: _____</p> <p>Sample Size: _____</p>		<p>Sample Date: _____</p> <p>Sample Time: _____</p>		<p>Sample Location: _____</p> <p>Sample Depth: _____</p>	
<p>Sample Description: _____</p> <p>Sample Notes: _____</p>		<p>Sample Analysis: _____</p> <p>Sample Results: _____</p>		<p>Sample Comments: _____</p> <p>Sample Status: _____</p>	



# Tomatoes

- When I lived in New Jersey....





# Tomatoes

- When I lived in New Jersey....



Your Local Extension Agent...



# Tomatoes

- I can't my tomatoes to grow... (after you leave)



Your Local Extension Agent...



# Tomatoes

- When I lived in New Jersey
- Are notoriously difficult to grow in this region
- Start from seed 6-8 weeks before last frost;
- Transplant as early as possible
  - Frost protection is necessary!





# Tomato Tips

- Plant deep = larger root systems
- Prune lower leaves
- Mulch!
- Water accordingly
- Blossom end rot (Calcium deficiency)
- Choose larger leaf varieties to protect from sunscald





# Tomato Tips

- Round fruited (**beefsteak**) are the most difficult to grow
- Try:
  - Celebrity (good for containers)
  - Better Boy
  - Mountain merit
  - Tasti-Lee
  - German Johnson (H)
  - Cherokee Purple (H)
  - Homestead (H)





# Tomato Tips

- Cherry and Grapes = easiest!
- Try:
  - Sungold
  - Mountain magic
  - Early cherry
  - Ruby crush





# Peppers

- Long producers; love the heat!
- Watch out for same diseases that plague tomatoes
- Hot peppers have good drought resistance
- Bells very productive when watered and fertilized
- Plant in late April



# Peppers: Tips

## ‘Early Jalepeno’

- Compact plants; 66 days to maturity
- Set fruit under ‘cooler’ conditions than other hot peppers
- Green = milder
- Red = hot!!!





# Peppers: Tips

## ‘Habanada’

- Compact plants; 70 days to maturity
- Habanero flavor without the heat





# Peppers: Tips

‘Italian sweet’

- Thick-walled; up to 8” fruits
- 70 days to maturity
- Sweet taste = great for snacking or pickling





# Peppers: Tips

## ‘California wonder’

- Leafy plants = good scald protection
- 65 days to maturity
- Green—red fruit
- Good ‘stuffing’ peppers





# Squash/Zucchini

- Generally pretty easy to grow
- Watch out for:
  - Blossom end rot
  - Squash vine borer
  - Squash bug
  - Powdery mildew (spring)
  - Downy mildew (summer)





# Squash/Zucchini: Tips

‘Dunja’ (Organic, F1)

- Compact plants
- Single-stemmed; spineless
- Resistance!
  - Powdery mildew
  - Downy mildew
  - Mosaic viruses





# Squash/Zucchini: Tips

## ‘Noche’ (F1)

- Larger plant (24” diameter)
- Heavy, prolonged yields
- Spineless
- Resistance:
  - Powdery mildew
  - Mosaic virus (moderate)





# Squash/Zucchini: Tips

## ‘Emerald Delight’ (F1)

- Early maturity (50 days)
- Open habit = easy harvest
- Good disease resistance
- Fruits long into the season





# Squash/Zucchini: Tips

## ‘Slick Pik’ (F1)

- Early maturity (48 days)
- Spineless
- Good for smaller spaces
- Long, narrow fruits
- Heat tolerant





# Cucumbers

- Generally pretty easy to grow
- Watch out for:
  - Blossom end rot
  - Poor pollination = misshapen fruits
  - Provide lots of vertical space to grow





# Cucumbers: Tips

## ‘General Lee’ (F1)

- Traditional flavor
- Heavy producer
- Excellent disease resistance





# Cucumbers: Tips

## ‘Raider’ (F1)

- High quality, crisp cucumbers
- Smooth skinned
- Disease resistant
- Heavy producers





# Cucumbers: Tips

## ‘Patio Snacker’ (F1)

- Maturity = 55 days
- Bitterless
- Don't get too large; up to 7"
- Good disease resistance





# Cucumbers: Tips

## ‘Marketmore 97’ (F1)

- Good slicer
- Great disease resistance
- Burpless and bitterless
- Up to 11” fruits; heavy producers





# Melons

- Wait until very warm to plant
- Take a long time to mature (up to 80 days)
- Needy:
  - Lots of space!
  - Fruits may require support when ripening





# Melons: Tips

## ‘Crimson Sweet’ (Heirloom)

- Sweet flavor
- Small, round dark green fruits
- Vines = 8'; 1 melon = 25 lbs!
- Resistant:
  - Fusarium wilt
  - Anthracnose





# Melons: Tips

‘Sugar baby’ (Heirloom)

- Icebox standard; great personal-size melons
- Vines = 6’
- 4-6 fruits/vine
- Supremely sweet flavor!





# Okra: Tips

## ‘Jambalaya’ (F1)

- 50 days to maturity
- Plant when really warm
- Uniform, 4” pods
- Plants compact, good for smaller spaces

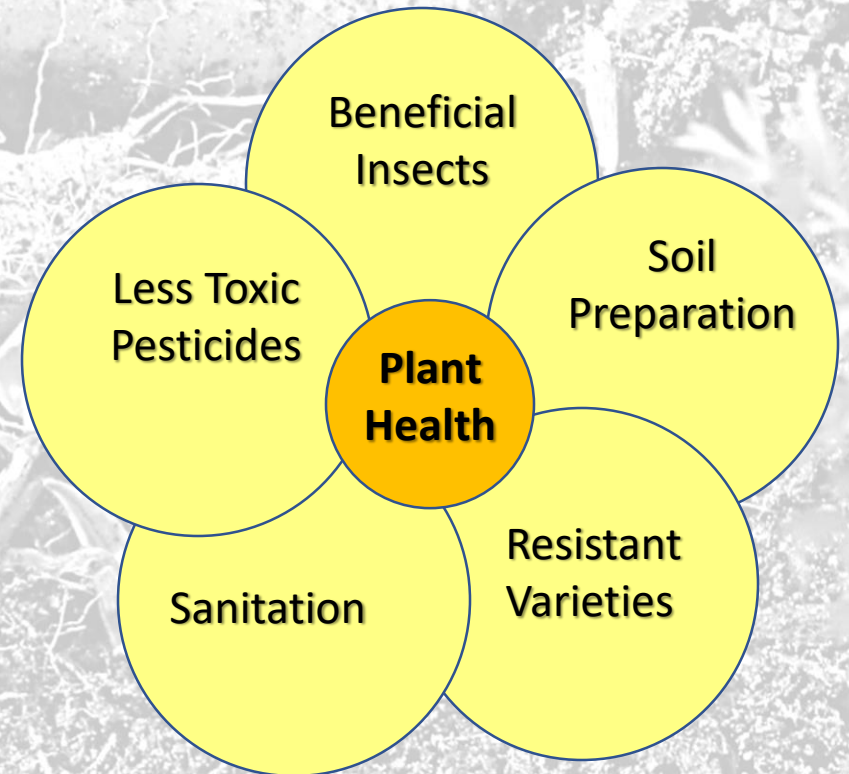




# Integrated Pest Management

## Principles of IPM

- Suppression, not eradication!

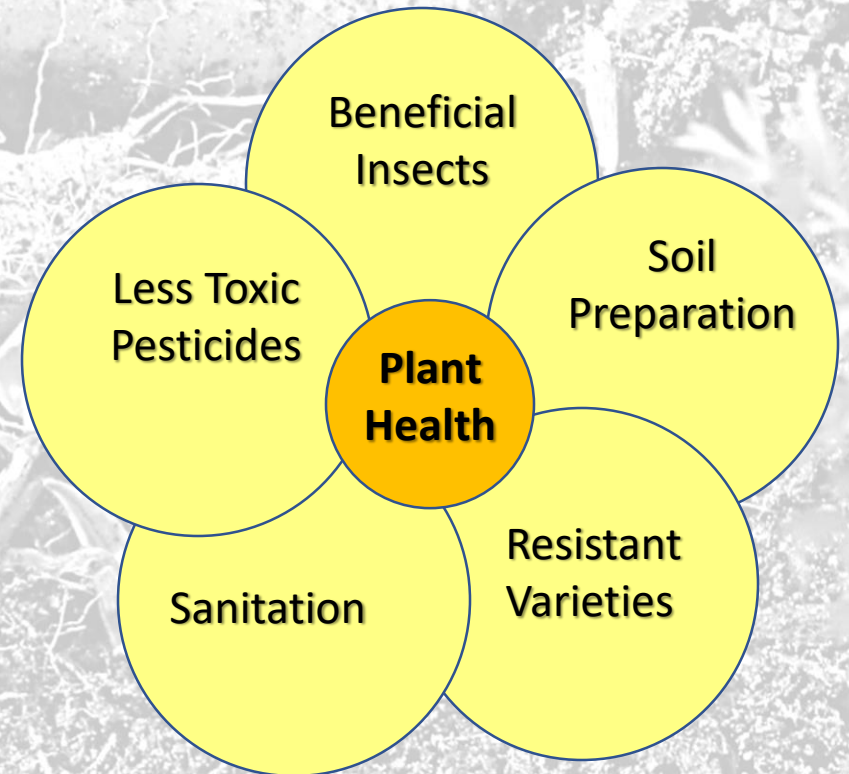




# Integrated Pest Management

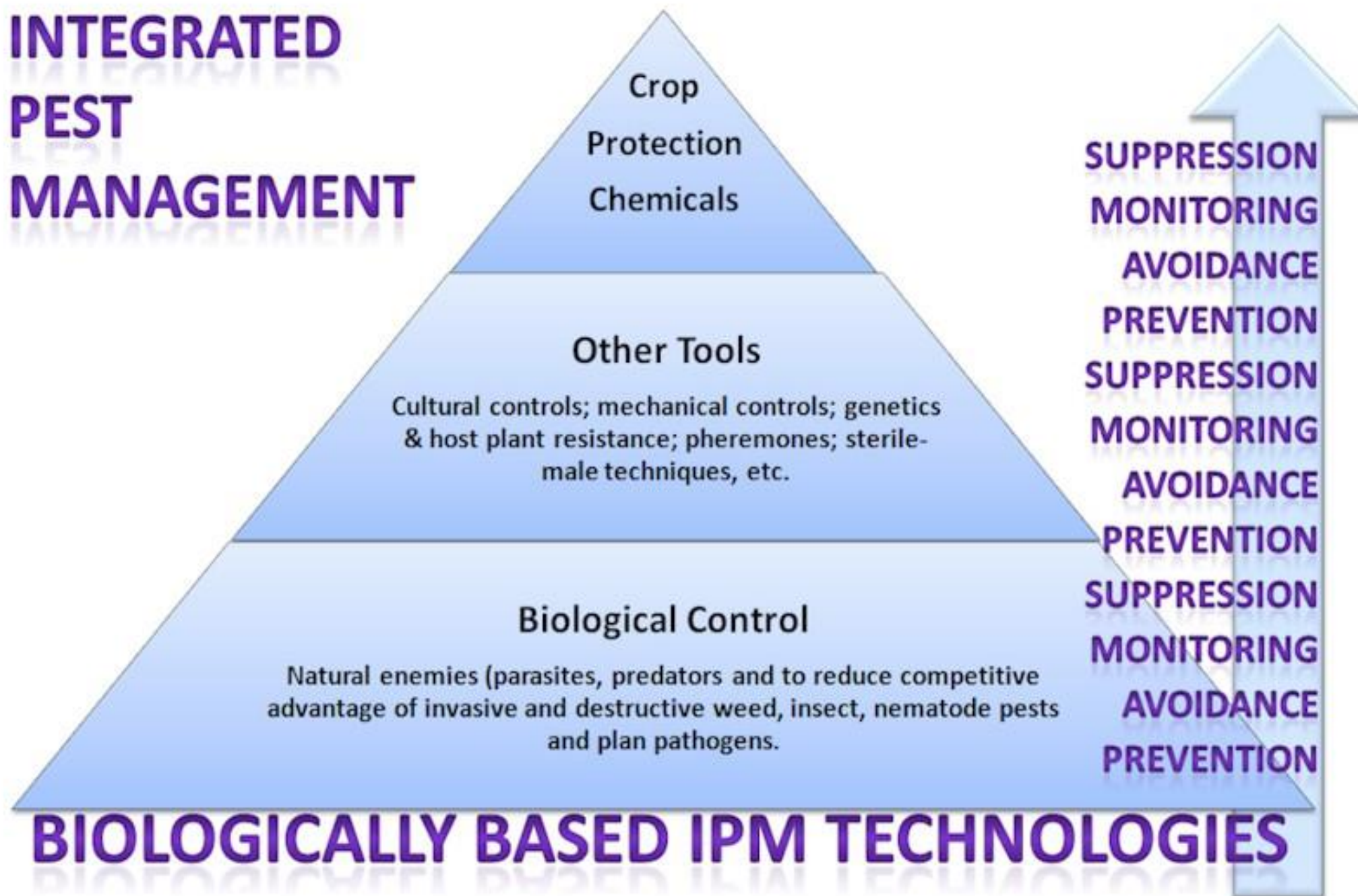
## Principles of IPM

- Suppression, not eradication!
- Following the hierarchy of controls:
  - Cultural management
  - Mechanical
  - Biological
  - Chemical





# INTEGRATED PEST MANAGEMENT





# Integrated Pest Management

## Interplanting

- Avoid placing all plants of one kind together in large groups
- Mix crop and non-crop plants





# Integrated Pest Management

## Choose Resistant Varieties

- Planting resistant varieties is the **ONLY** way to manage tomato spotted wilt virus and nematodes.





# Integrated Pest Management

## Proper Watering

- Water the soil, not the leaves
- Water when leaf already wet (early morning)
- Overwatering = root rot





# Integrated Pest Management

## Proper Spacing

- Plan for mature size
- Allow air flow between plants to promote drying & prevent disease
- Allow adequate space to minimize:
  - Competition for Water, Nutrients, & Light
  - Habitat for pests





# Integrated Pest Management

## Crop Rotation

- Avoid planting crops in the same family in the same location multiple years.





# Integrated Pest Management

## Avoidance

- Avoid known pest problems by planting early or late



Plant squash early to avoid  
vine borers which become  
active in June



# Integrated Pest Management

## Hand-picking

- Inspect plants for
  - egg clusters,
  - beetles,
  - caterpillars, or
  - other pests.
- Squash or drop them in sudsy water.





# Integrated Pest Management

## Barriers

- Row covers, sticky barriers, netting, exclusion cages





# Integrated Pest Management

## Tillage

- Kills weed seed, diseases and insects in soil surface (3"-4")
- Till beds, water, and cover with clear plastic for 6-8 weeks in July-August





# Integrated Pest Management

## Cover Crops

- Plant cover crops when beds are not in use
- Clean up crop residue after season





# Integrated Pest Management

## When you Need to Use Chemicals

- Choose the correct treatment for the correct problem!
- Always choose less toxic options first
  - Soaps and Oils
  - Plant Derived
  - Microbial
  - Mineral based
- Synthetic insecticides (insect killers) pose most serious threat to people, animals and the environment



# Integrated Pest Management

## Consider this...

- Is the problem serious?
  - Will depend on the plant size and part affected!
- Is the problem likely to reoccur?
  - Would it better to replace the plant?





# Integrated Pest Management

Consider this...

- Timing
  - Susceptible life stage?
  - Are plants currently flowering?





# Integrated Pest Management

## Consider this...

- Is the problem serious?
  - Will depend on the plant size and part affected!
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# Integrated Pest Management

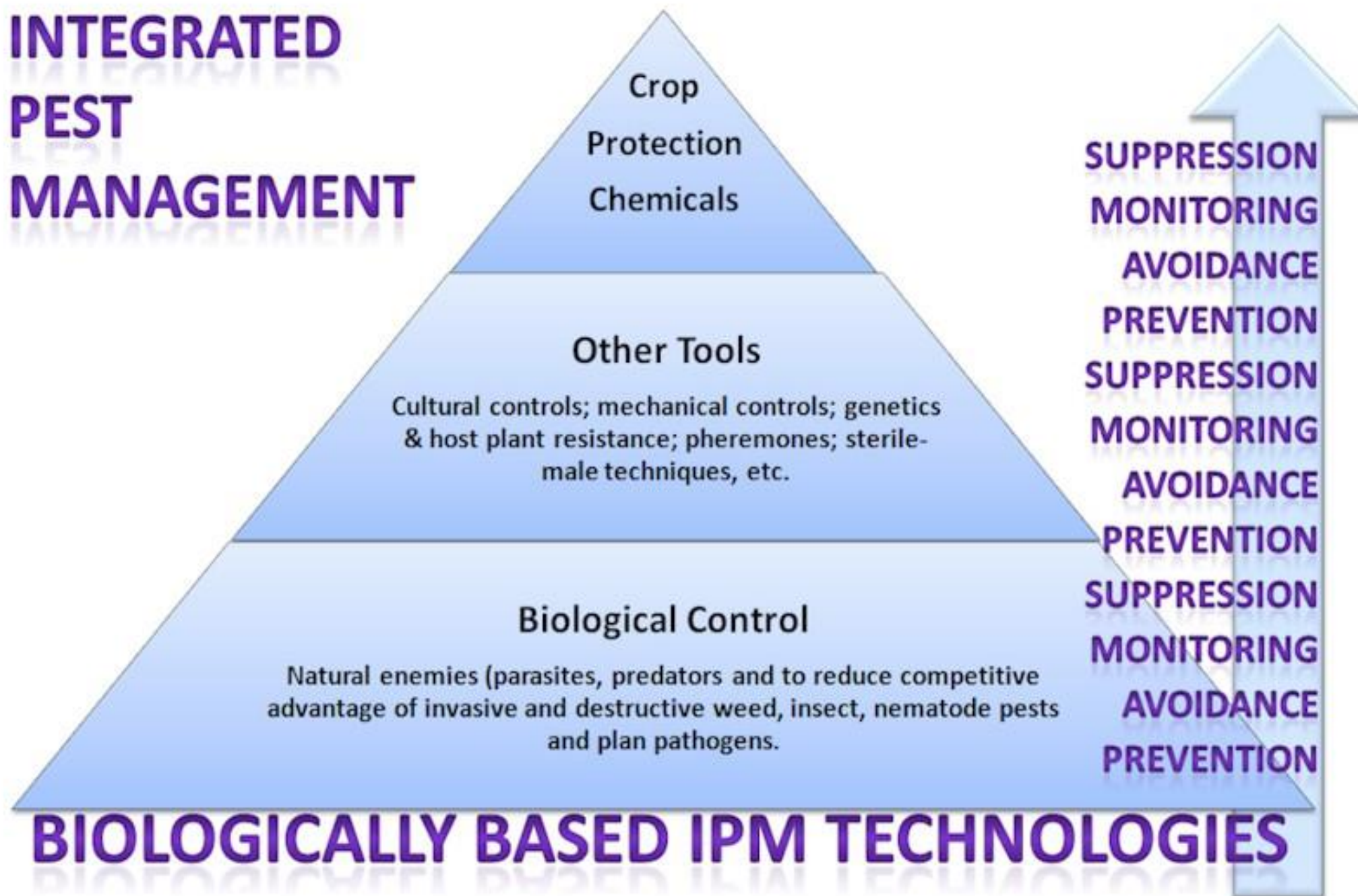
## Consider this...

- All insecticides are toxic; especially pyrethroids
- Apply in late evening; spray just before bud break
- Use lower-toxicity products





# INTEGRATED PEST MANAGEMENT





# Effective Communication

## Develop a plan

- Community Gardens should have reasonable by-laws
  - Shallotte Community Garden Contract
- Lease agreements: Clear, concise language
- Reasonable accommodations



# Effective Communication

## Regularly Scheduled Meetings

### Shallotte Community Garden Minutes

April 23, 2015

**Present:** Vic Stephens, Joan Eccard, Cherie Conway, Sam Marshall, Rachel Johnson

Approved the March minutes. Updated that the anticipated date for access to the Community Garden is June 30, 2015.

The group reviewed the budget and prioritized the items they felt were most important. Additionally the group created a suggested implementation cycle.

An update on the pollinator garden Grow grant was provided. Plants were purchased and are being housed at the Shallotte Greenhouse and cared for by Cindy Babson. Discussed implementation of the educational aspects of the garden.

Discussed renting to churches, civic groups, nursing homes etc. The group felt this would be a great thing for the garden. It was decided issuing to keys to larger groups would better accommodate their needs.

Again it was discussed County resident vs. Shallotte resident and if priority should be given to Shallotte residents. The question is being presented to the Mulberry Park Committee.

The Lease agreement was updated to include additional verbiage about who can apply pesticides as well as a USDA definition of Organic Gardening.



# Effective Communication

## Identify Your Leaders

- Utilize existing strengths
- Divide/delegate tasks
- Balance product with process
- Create mentoring opportunities
- Provide networking and training opportunities

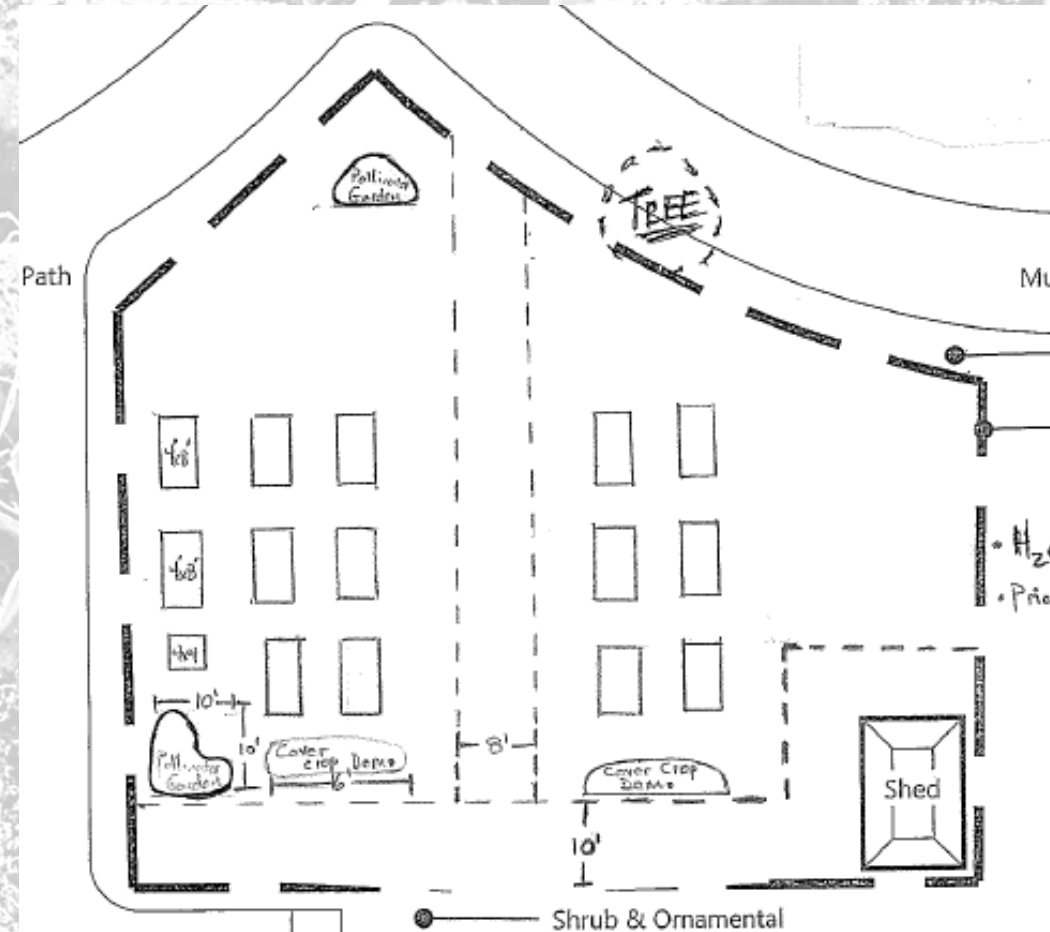


# Effective Communication

## Utilize your Resources and Community Partners

- Create opportunities for presentations
- Provide networking and training opportunities

**“Make a plan that sticks, and stick with the plan!”**

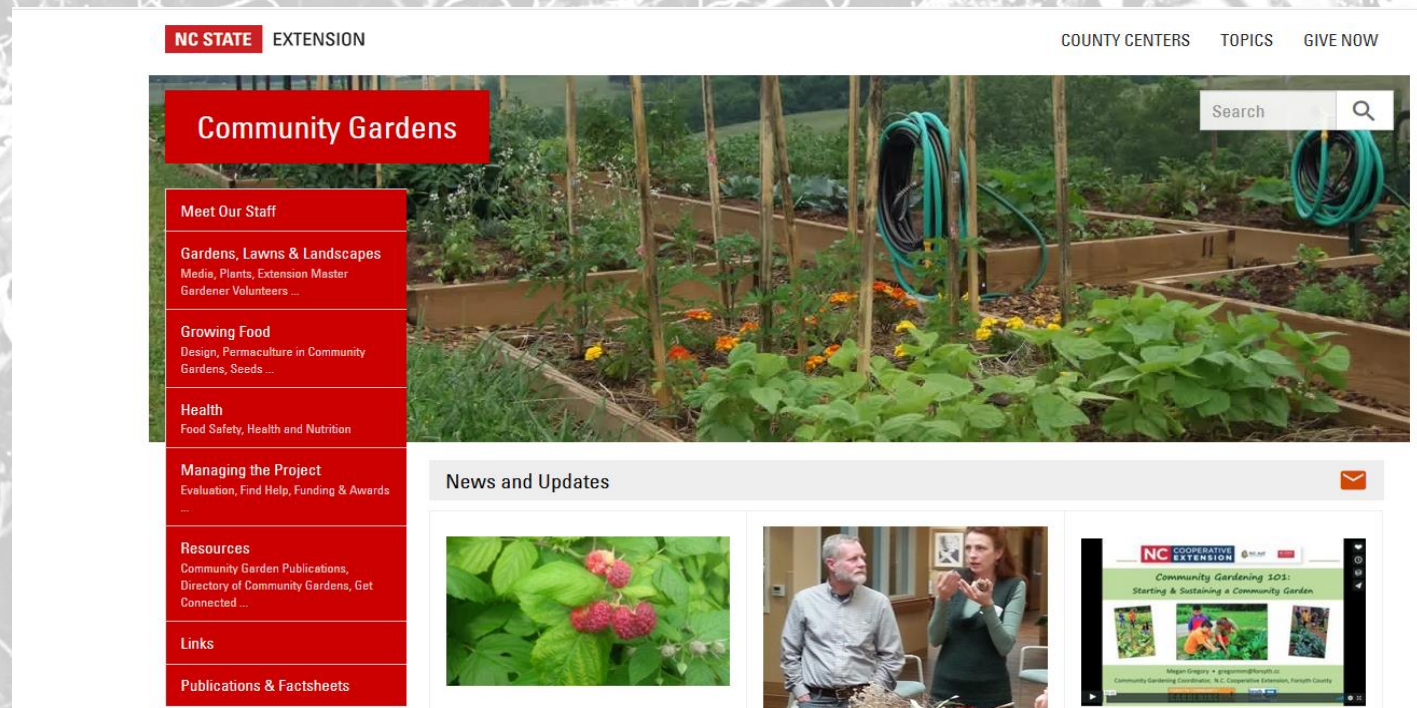




# Effective Communication

## Useful Resources

- [Community Gardens Portal](#)





# Effective Communication

## Useful Resources

### Resources

Community Garden Publications,  
Directory of Community Gardens, Get  
Connected ...

### Links

Publications & Factsheets



### Now on Twitter

#### ExtensionVoices

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nationwide.

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MSU Extension  
[@MSUExtension](#)

The [@Michigan4H](#) is one of the  
five states to receive a \$20,000  
grant to administer the 2019 4-H  
Ag Innovators Experience. The  
project will engage 20 teens to  
teach the connections between  
native bee populations and local  
food supply. [canr.msu.edu/news](#)

## Start a Garden

### *"Eat Smart Move More North Carolina: Growing Communities through Gardens"*

A planning and resource guide for anyone who is  
thinking about starting a community garden.

The guide describes a community garden, its  
benefits, how to find or start a garden and tips for  
growing, storing, preparing and enjoying fruits and  
vegetables. In addition it highlights state and national  
gardening resources.

Whether your "community" setting (work site, faith  
community, school, etc.) is considering starting a  
community garden or you are thinking about joining  
a garden near you, the primer walks you through the  
options, steps and resources to ensure success.

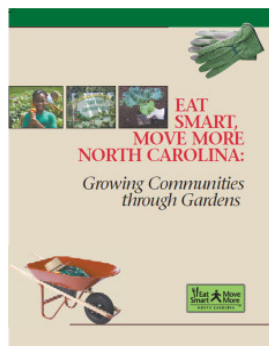
[Low-Resolution Version](#), PDF (2.88 MB)

[Hi-Resolution Version](#), PDF (9.91 MB)

[Reduced ink version for printing](#), PDF (4.78 MB)

### How to Organize a Community Garden

Community Gardening Tool Kit with background  
information, How to start a garden, select a site,  
organize, trouble shoot potential problems. Includes



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Meeting** — Montgomery County Center

**Composting for the Home  
Garden** — Wayne County Center

**Gardening Tips-Square Foot  
Gardening** — Halifax County Center

**Getting Started** — Extension  
Publication






# Effective Communication

## Useful Resources

Growing Food  
Design, Permaculture in Community  
Gardens, Seeds ...

Health  
Food Safety, Health and Nutrition

Managing the Project  
Evaluation, Find Help, Funding & Awards  
...




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RESOURCES

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- ▶ DIRECTORY OF COMMUNITY GARDENS
- ▶ GET CONNECTED
- ▶ MODEL PROGRAMS AND POLICIES
- ▶ NC COMMUNITY GARDEN PARTNERS
- ▶ REFERENCES
- ▶ RELATED ORGANIZATIONS
- ▶ RESEARCH
- ▶ SEARCH TIPS
- ▶ VIDEOS-WEBINARS



Community Gardening Programs in Other Places

Boston Natural Areas Network

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# Effective Communication

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[Home](#) » **Model Programs and Policies**

## Model Programs and Policies

### Land Use Protection

- [Community Gardens for Public Health](#) <sup>↗</sup> National Policy and Legal Analysis Network
- Model land use policies – [Ground Rules: A Legal Toolkit for Community Gardens](#)
- [Volunteers and Liability](#): the Federal Volunteer Protection Act
- [Factsheet for Advocates](#): How to use policies to protect community gardens



Little Sugar Creek Community Garden, Charlotte, NC Image by Nadine Ford

### Community Gardening Programs in Other Places

[Public News](#) [Local News](#) [National News](#) [International News](#)

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