Insects as a threat to the garden

- Compete with humans for food and fiber
- Damage plant tissues through feeding
- Carry and spread plant diseases
Insects as a benefit to the garden

- Pollinate plants
- Provide valuable food in the food chain
- Some insects feed on other harmful insects
HOW INSECTS FEED

- CHEWING INSECT
  - Bites off, chews, and swallows plant parts

- SUCKING INSECT
  - Pierces the outer layer of the plant and sucks the sap from the cells

- BURROWING INSECT
  - Burrows into plant parts (stems, leaves) for food, shelter, nesting
GOOD, BAD, AND UGLY BUGS
Merle Shepard, Gerald R. Carner, and P. A. C. Ooi, Insects and their Natural Enemies Associated with Vegetables and Soybean in Southeast Asia, Bugwood.org
Nicolina Zambone, Nicolina's Photography, Bugwood.org
Image of a caterpillar with eggs on it.
DIAGNOSING YOUR PEST

- Leaf Damage
  - Burrowing
  - Chewing
  - Skeletizing
  - Sucking
- Flower Eating & Sucking
- Stem Burrowing
- Root Damage
- Fruit Damage
LEAF DAMAGE - burrowing
LEAF DAMAGE - chewing
LEAF DAMAGE - chewing
LEAF DAMAGE - chewing
LEAF DAMAGE – leaf skeletizing
FLOWER EATING AND SUCKING
STEM BURROWING
ROOT DAMAGE

Art Cushman, USDA; Property of the Smithsonian Institution, Department of Entomology, Bugwood.org
FRUIT DAMAGE
Fight back!

Or better yet, don’t welcome pests to your garden in the first place
The 3 U’s of Pest Management

Create a habitat that is:

- UNACCEPTABLE
  - Plant companion crops that deter pests
- UNAVAILABLE
  - Physical barriers, plant timing, mixed plantings
- UNSURVIVABLE
  - Attract pest predators and—when necessary—use organic substances to knock back pests
10 Proactive Practices for a Healthy Garden

1. SANITATION
2. USE HIGH QUALITY PLANTS AND SEEDS
3. ROTATE CROPS
4. DON’T PLANT TOO EARLY
5. MULCH
6. AVOID OVERCROWDING
7. WATER EARLY IN THE DAY
8. REMOVE DISEASED MATERIAL ASAP
9. FERTILIZE JUST THE RIGHT AMOUNT
10. MAINTAIN LOW INSECT DAMAGE
Resources


Thank You!

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