

Victory Garden 101: Common Insect Problems

Notes Page

General Pest Control Practices

- Sanitation
- Appropriate Plant Spacings
- Crop Rotation/Cover Crops
- Mulching & Watering Practices
- Minimize Plant Stress
- Regular Scouting!

What About Companion Planting?

- Research results are highly variable
- Too many variables to account for
- Encourage plant diversity, including habitat for beneficial insects

Tips for Scouting

- Walk & Look – regularly
- Observe carefully
- Assess the threat
- Determine action

Insect Life Cycles

- Incomplete Metamorphosis
- Complete Metamorphosis

Types of Insect Damage

- Chewing
 - Holes
 - Parts are missing
- Boring (subset of chewing)
 - Holes in stems
 - Often notice generalized plant wilting first
- Sucking
 - Discoloration – large areas or spots
 - Leaves yellow and die over time

Spider Mites

- Suck the juices out of plant leaves
- Stippled appearance
- Horticultural oils and insecticidal soaps
- Hard stream of water

Aphids

- More common in the early summer
- Damage plants by sucking juices
- Most common garden insecticides will kill aphids

Flea Beetles

- Tiny black beetles
- Very small holes in the leaves in the early spring
- Tomatoes usually outgrow damage
- Controlled with neem oil or permethrin.

Cucumber Beetle

- Young seedlings are especially susceptible
- Eat holes in leaves, or whole leaves!
- Can damage fruit
- Striped and Spotted types
- Permethrin, pyrethrin, neem oil?

Grasshoppers

- Can be very destructive
- Often worst during droughts
- Best to control when immature
- Wingless stages
- Permethrin, Cyfluthrin, carbaryl
- Retreatment is necessary often
- Contact is necessary to kill
- Apply before sunrise for best results

Blister Beetles

- Very destructive
- Chewing insects
- Adult stage is damaging
- Eat grasshopper eggs!
- Permethrin, cyfluthrin, Lambda-cyhalothrin, carbaryl

Tomato Hornworm

- Green caterpillar with characteristic "horn"
- One caterpillar can be very damaging
- Find it and squash it!

Cutworms

- Early season cutworms often chew a plant off at the soil level.

- Later season cutworms can eat leaves.
- If the plant is totally cut off, replanting is necessary.

Squash Vine Borer

- Larvae bore into the stems near the crown
- Causes the plant to wilt, especially in heat
- Decreases plant vigor
- Hard to control
 - Apply insecticide after egg hatch but before larvae bore into stems – only a few hours!
 - Insecticides: Permethrin, Sevin, Spinosad
- Mechanical Barriers:
 - Row Cover + Parthenocarpic Squash
 - Parthenocarpic Varieties
 - Pollination not required!
 - Row Cover (removed)
 - “Collars” around the stems
- Resistant Varieties
 - Squash Vine Borer - *C. moschata* & *C. mixta*
 - Tromboncino, Butternut, Cushaw, others
 - Squash Bug Resistance
 - Butternut, Royal Acorn, Sweet Cheese, Cushaw

Squash Bug

- Cause wilted leaves, low vigor
- Scout for eggs under the leaves
- Easiest to kill when they are young
- Use permethrin, pyrethrin

Bean Leaf Beetle & Mexican Bean Beetle

- Carbaryl, Permethrin, Pyrethrin?

Cabbage Looper & Imported Cabbage worm

- Dipel Dust or Thuricide Spray
- Carbaryl
- Soaps & oils
- Permethrin
- Pyrethrin
- Spinosad

Corn Earworm

- Eggs laid on green silks
- Larvae crawl into tip of ear and eat
- Permethrin, Cyfluthrin
- Spinosad

- Mineral oil & Bt?

Harlequin Bug

Parsleyworm

Thrips

Roly Polys

Stinkbugs

Eggplant Lacebug

Questions?

For More Information:

Master Gardener Hotline

- sgemghotline@gmail.com - preferred
- 316-660-0190
- M-F, 9-12 and 1-4
- Walk-In Clinic (not right now, but eventually)

Extension E-Newsletter

- Text: EXTENSION to 42828

Horticulture Information Center:

<http://hnr.k-state.edu/extension/info-center/>

Social Media

Facebook Page: <http://facebook.com/sedgwickextension>

Facebook Group: <https://www.facebook.com/groups/victorygarden101/>

Instagram: @ksresedgwickco

The Demo Garden blog: <http://thedemogarden.org>

References & Resources for Additional Learning

Find Your Local Extension Office & Resources:

Kansas: <https://www.ksre.k-state.edu/about/stateandareamaps.html>

Other States: Do an internet search for “*your state* extension” or “*your county* extension.” It is usually affiliated with the land grant university in your state.

Horticulture Information Center: <https://hnr.k-state.edu/extension/info-center/>

Kansas Garden Guide: <https://bookstore.ksre.ksu.edu/pubs/s51.pdf> (Pages 33-37)

Publications & Fact Sheets:

Insect and Mite Pests of Vegetable Gardens: <https://bookstore.ksre.ksu.edu/pubs/MF3480.pdf>

Aphids: <https://hnr.k-state.edu/extension/info-center/common-pest-problems/common-pest-problem-new/Aphids.pdf>

Armyworms & Cutworms: <https://hnr.k-state.edu/extension/info-center/common-pest-problems/common-pest-problem-new/Armyworms.pdf>

Bean Leaf Beetle: <https://hnr.k-state.edu/extension/info-center/common-pest-problems/common-pest-problem-new/Bean%20Leaf%20Beetle.pdf>

Blister Beetles: <https://hnr.k-state.edu/extension/info-center/common-pest-problems/common-pest-problem-new/Blister%20Beetles%20.pdf>

Cabbage Looper: <https://hnr.k-state.edu/extension/info-center/common-pest-problems/common-pest-problem-new/Cabbage%20Looper.pdf>

Imported Cabbageworm: <https://hnr.k-state.edu/extension/info-center/common-pest-problems/common-pest-problem-new/Imported%20Cabbageworm.pdf>

Colorado Potato Beetle: <https://hnr.k-state.edu/extension/info-center/common-pest-problems/common-pest-problem-new/Colorado%20Potato%20beetle.pdf>

Corn Earworm: <https://hnr.k-state.edu/extension/info-center/common-pest-problems/common-pest-problem-new/Corn%20Earworm.pdf>

Cucumber Beetle: <https://hnr.k-state.edu/extension/info-center/common-pest-problems/common-pest-problem-new/Cucumber%20Beetles.pdf>

Flea Beetle: <https://hnr.k-state.edu/extension/info-center/common-pest-problems/common-pest-problem-new/Flea%20Beetle.pdf>

Grasshoppers: <https://bookstore.ksre.ksu.edu/pubs/L868.PDF>

Harlequin Bug: <https://bookstore.ksre.ksu.edu/pubs/MF3135.pdf>

Pillbugs & Sowbugs (Roly-Poly): <https://bookstore.ksre.ksu.edu/pubs/ep120.pdf>

Tomato & Tobacco Hornworms: <https://bookstore.ksre.ksu.edu/pubs/MF3075.pdf>

Spider Mites: <https://hnr.k-state.edu/extension/info-center/common-pest-problems/common-pest-problem-new/Two-spotted%20Spider%20Mite.pdf>

Slugs & Snails: <https://hnr.k-state.edu/extension/info-center/common-pest-problems/common-pest-problem-new/Slugs.pdf>

Squash Bug: <https://bookstore.ksre.ksu.edu/pubs/MF3308.pdf>

Squash Vine Borer: <https://bookstore.ksre.ksu.edu/pubs/MF3309.pdf>

Stink Bug: <https://hnr.k-state.edu/extension/info-center/common-pest-problems/common-pest-problem-new/Tomato%20Stink%20Bug.pdf>

Videos:

Beneficial Insects: <https://kansashealthyyards.org/all-videos/video/beneficial-insects-not-all-bugs-are-bad>

Inspect Plants for Insects: <https://kansashealthyyards.org/all-videos/video/inspect-plants-for-insects>

Pesticides – When Can I Harvest?: <https://kansashealthyyards.org/all-videos/video/pesticides-when-can-i-harvest>

Spider Mites: <https://kansashealthyyards.org/all-videos/video/spider-mites-on-tomatoes>

Squash Vine Borers: <https://kansashealthyyards.org/all-videos/video/squash-vine-borers>