

Vegetable Garden Pests presentation by Susan Mulvihill

Lynn Valley Garden Club, January 20, 2022

Cultural practices to keep plants healthy:

- Sunny vegetable garden spot
- Know your region's growing conditions (frost dates, etc.)
- Provide the right amount of water
- Choose pest-resistant varieties, if possible
- Space plants appropriately
- Monitor garden regularly!
- Garden journal
- Crop rotation, if possible
- Keep up with the weeds
- Keep garden free of debris

Bug identification is so important

- Magnifying glass
- Cell phone camera or regular camera
- Insect ID phone apps (Picture Insect – Bug Identifier, Insect Identification, Leps by Fieldguide, Seek by iNaturalist)
- Simple web searches
- Great websites: bugguide.net
- Insect identification keys on the web
- Insect ID groups on Facebook
- Master Gardener volunteers!

Pest profiles:

- **Aphids**
 - **Information:** Up to 1/8" (3 mm) long, look for cornicles, many different colored species, they exude both a waxy substance for defense and honeydew. Aphids reproduce asexually, only mate late in the year so females can lay eggs at the end

of the season, eggs hatch in spring, females are already pregnant when they hatch, live birth to wingless aphids

- **Which crops?** Artichokes, asparagus, beans, beets, cabbage family crops, corn, lettuce, onions, peas, etc. Look for puckered leaves, honeydew.
- **Controls:** Blast them with a strong jet of water, avoid excessive use of high-nitrogen fertilizers. Use floating row covers over susceptible crops that don't require pollination. Apply diatomaceous earth, horticultural oil, insecticidal soaps*, Neem*, plant extracts, or pyrethrins* (*= harmful to pollinators)
- **Cabbage worms (imported)**
 - **Information:** Adults have 2" (5 cm) wingspan; caterpillars are 1 to 1 ½" long (2.5 to 3.8 cm), yellow line on center of back; butterfly emerges from chrysalis in spring, mates, lays eggs on cabbage family crops; caterpillars hatch in 5 days, go through 5 instars, pupate in loose cocoon for 11 days, emerge (or pupate in debris during winter if late in season); butterflies live for up to 3 weeks
 - **Which crops?** Cabbage family crops (arugula, broccoli, Brussels sprouts, cabbage, cauliflower, kale, kohlrabi, mustard, radish, rutabaga, turnip). Look for holes in leaves, worms on/near leaf midrib
 - **Controls:** Floating row cover works great! No pollination needed. Hand-pick larvae, crush eggs. Spray *Bt kurstaki* on leaves at first sign of damage. Clean up plant debris. Apply Neem*, plant extracts, pyrethrins*, or spinosad*
- **Cutworms**
 - **Information:** Adult is the dingy cutworm moth, nocturnal, they do not damage plants. Larvae are 1 to 1 ½" (2.5 to 5 cm), nocturnal. Active above or just below soil level, curl into a C-shape when disturbed and also while chewing through plant stems. Prefer tender stems, most active in spring. Up to 3 generations in a year.
 - **Which crops?** Artichokes, asparagus, beans, cabbage family crops, celery, corn, cucurbit family crops, lettuce, peas, peppers, potatoes, tomatoes
 - **Controls:** Monitor regularly for damage, go out at night. Hand-pick the cutworms. Remove plant debris to eliminate places for moths to lay eggs. Make cutworm collars around tender seedlings. Sprinkle diatomaceous earth around base of tender seedlings. Disturb soil in early spring and fall to expose overwintering larvae or pupae. Apply *Bt kurstaki*, beneficial nematodes, Neem*, or plant extracts
- **Slugs**

- **Information:** Gastropods (“stomach foot”). Secrete mucous to help move about. Two sets of tentacles (vision, smell). Can grow up to 2” (5 cm) long. Nocturnal, hide in moist areas during the day. Hermaphrodites (have both sexual organs); lay 80-100 eggs in spring and fall. Hibernate in topsoil in cold winter areas and estivate (hibernate) in a papery membrane during hot weather. Slugs live up to a year.
- **Which crops?** Artichokes, basil, beans, beet family crops, cabbage family crops, lettuce, peppers, tomatoes. Look for irregularly-shaped holes, slime trails.
- **Controls:** Eliminate moist hiding areas. Water in morning, use drip irrigation if possible. Hand-pick. Trap under boards and upside-down flower pots. Use beer traps. Place copper foil barriers around base of plants. Apply diatomaceous earth around base of plants. Apply plant extracts. Use organic slug bait (contains iron phosphate, not metaldehyde which is toxic to pets).
- **Spider mites**
 - **Information:** Arachnids. They are less than 1 mm long. Two-spotted spider mites bother vegetable crops by sucking plant sap. Spider mites common when pesticides have been used (kills off their predators). They love hot weather and stressed plants.
 - **Which crops?** Beans, cucumbers, lettuce, melons, peas, tomatoes. Look for fine webbing on the plants, and white or yellow stippling of the leaves.
 - **Controls:** Water plants regularly so they aren’t stressed. Blast spider mites off the plants with water. Apply, horticultural oil*, plant extracts, pyrethrins*, or spinosad*.

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My books:

- **The Vegetable Garden Pest Handbook, Cool Springs Press (2021)**
- **Northwest Gardener’s Handbook, Cool Springs Press (includes southern B.C.!)**