



Pork & Plants LLC
 16378 County Rd 114
 Altura, MN 55910
 507-689-2678
www.porkandplants.com
www.facebook.com/PorkandPlants

Common Garden Pests

Aphids (Family Aphididae)



Bean aphids



Cabbage aphids



Green peach aphids



Melon aphid winged adult



Damage



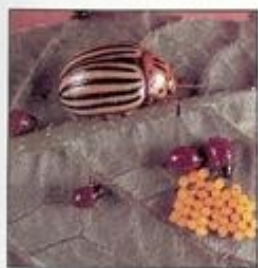
Woolly apple aphids

Description: Adults are pear-shaped, $\frac{1}{32}$ "- $\frac{1}{8}$ " insects with 2 short tubes projecting backward from the abdomen; long antennae; green, pink, black, dusty gray, or with white fluffy coating; with or without wings. Nymphs are similar to adults. Colonies develop quickly; winged forms appear when they become crowded.

Damage: Adults and nymphs suck plant sap from most small fruits, vegetables, ornamentals, and shade trees. Their feeding causes leaf, bud, and flower distortions; severely infested leaves and flowers drop. Fruit that forms on infested branches are misshapen and stunted. Aphids secrete sticky honeydew that supports growth of sooty mold on leaves and fruit. Feeding can spread viral diseases.

Control: For vegetable crops and small ornamentals, spray smaller plants frequently with a strong stream of water to knock aphids off; attract native predators and parasites by planting pollen and nectar plants; release purchased aphid midges, lady beetles, lacewings, or parasitic wasps; use homemade garlic, quassia or tomato-leaf sprays; spray insecticidal soap; as a last resort, spray infested plants with pyrethrin or neem. For fruit or shade trees, spray dormant oil to kill overwintering eggs, and plant flowering groundcovers in home orchards to attract predators and parasites.

Colorado Potato Beetle *Leptinotarsa decemlineata*



Eggs, larvae, and adult



Larva



Adult



Adults and larvae

Description: Adults are yellowish orange, $\frac{1}{3}$ " beetles with 10 lengthwise, black stripes on wing covers, black spots on thoraxes. Larvae are dark orange, humpbacked, $\frac{1}{16}$ "- $\frac{1}{2}$ " grubs with a row of

black spots along each side. Eggs are bright yellow ovals, standing on end in clusters on undersides of leaves.

Damage: Both adults and larvae chew leaves of potatoes, tomatoes, eggplants and related plants, including petunias. Feeding can kill small plants and reduces yields of mature plants.

Control: When overwintering adults begin to emerge, shake adults from plants onto a dropcloth in the early morning. Dump beetles into soapy water. Attract native predators and parasites with pollen and nectar flowers; mulch plants with deep straw layer; cover plants with floating row cover until midseason; apply double strength sprays of BTSD on larvae; spray infested plants weekly with neem or pyrethrin.

Corn Earworm/Tomato Fruitworm

Helicoverpa (=Heliothis) zea



Larva and external damage



Larva and internal damage



Larva and damage



Adult

Description: Adults are tan moths (1½-2" wingspan). Larvae are 1-2" long, light yellow, green, pink or brown; white and dark stripes along sides; yellow heads and black legs. Eggs are white, ribbed and round.

Damage: Larvae burrow into ripe tomatoes, eat buds, and chew large holes in leaves. In corn, larvae feed on fresh silks, then move down ears eating kernels, leaving trails of excrement. Early and late corn cultivars most affected. Larvae will also feed on broad range of vegetable crops, fruits and flowers.

Control: Plant corn cultivars with tight husks to prevent larvae from entering. After corn silks start to dry, spray BTK into tips of ears, or apply granular BTK. Spray BTK on leaves and fruit of plants where fruitworms are feeding; attract native parasitic wasps and predatory bugs. Paint pyrethrin-and-molasses bait (3 parts spray solution to 1 part molasses) around base of plants to kill emerging adults; use pheromone traps to monitor appearance of moths.

Cucumber Beetle, Striped *Acalymma vittatum*



Adult and damage

Description: Adults are yellow, elongate, ¼" beetles with black heads and 3 wide black stripes on wing covers. Larvae are slender, white grubs.

Damage: Adults feed on squash family plants, beans, corn, peas and blossoms of many garden plants. The beetles swarm on seedlings, feeding on leaves and young shoots, often killing plants; they also attack stems and flowers of older plants and heat holes in fruit. Feeding can transmit wilt and mosaic viruses. Larvae feed on roots of squash family plants only, killing or stunting plants.

Control: Cover seedlings or plants with floating row cover, and hand-pollinate covered squash family plants; pile deep straw mulch around plants to discourage beetles from moving between plants; apply parasitic nematodes to soil to control larvae; spray with pyrethrin when adults are seen feeding on pollen in flowers.

Cucumber Beetle, Spotted/Southern Corn Rootworm *Diabrotica undecimpunctata howardi*



Adult



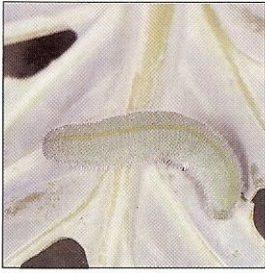
Damage

Description: Adults are greenish yellow, ¼" beetles with 11 black spots on wing covers. Larvae are white, ½" grubs with brown heads and brown patches on first and last segments.

Damage: Larvae feed on roots of corn, often killing young plants; older plants are weakened and may topple easily. Adults feed on leaves and sometimes petals of squash family plants, other vegetable crops, and flowers. Both larvae and adults can transmit cucumber mosaic virus and bacterial wilt.

Control: Cover seedlings or plants with floating row cover, and hand-pollinate covered squash family plants; apply parasitic nematodes to soil weekly to control larvae; control adults by spraying with pyrethrin.

Imported Cabbageworm *Artogeia (=Pieris) rapae*



Larva



Adult

Description: Adults are common white butterflies; forewings with black tips and 2 or 3 spots (1½"-2" wingspan). Larvae are velvety green caterpillars up to 1¼", with a fine yellow stripe down the back. Eggs are yellow cones laid on undersides of leaves.

Damage: Larvae eat large, ragged holes in leaves and heads of cabbage family plants, soiling leaves with dark green droppings.

Control: Cover plants with floating row cover, handpick larvae in light infestations, use yellow sticky traps to catch female butterflies. As a last resort, spray with BTK at 1-2 week intervals.

Mites, Spider (Family Tetranychidae)



Two-spotted spider mite



Adults and webbing



Damage

Description: Adults are minute, 8-legged, 1/50" mites with fine hairs on body, reddish, pale green or yellow; most, but not all, species spin fine webs. Nymphs are similar to adults, but smaller; early stages with 6 legs.

Damage: Adults and nymphs suck juice from cells on undersides of leaves of many food crops, ornamentals, and fruit trees. Plants are weakened, leaves may drop and fruit may be stunted. Early damage appears as yellow speckled areas, with or without webbing, on leaf undersides; later, leaves are bronzed or turn yellow or white with brown edges, webs may cover leaves and growing tips.

Control: Spray dormant oil on fruit trees to kill overwintering eggs; in garden rinse plants with water and mist daily to suppress reproduction of mites; release predatory mites *Metaseiulus occidentalis* on fruit trees, *Phytoseiulus persimilis* or similar species on vegetables, strawberries, and flowers; spray insecticidal soap, pyrethrin, or neem; as a last resort, spray infested plants with avermectins.

Slugs/Snails



Slug



Brown garden snail

Description: Adults are soft-bodied, gray, tan, green, black, yellow, or spotted, wormlike animals that are members of the same group as clams. Slugs have no shells, while snails have coiled shells. Measuring $\frac{1}{8}$ "-8", both slugs and snails leave characteristic trails of mucus wherever they crawl. Eggs are clear, oval or round, laid in jellylike masses under stones or debris.

Damage: Both slugs and snails rasp large holes in foliage, stems, and bulbs. They feast on any tender plant, like hostas, or shrub and may demolish seedlings. Most damaging in wet years or regions.

Control: Wrap copper strips around trunks of trees or shrubs, or use copper flashing as edging for garden beds. Trap under flowerpots or boards. Attract with pieces of raw potato or cabbage leaves set out in the garden; collect and destroy every morning. Trap in shallow pans of beer buried with the container lip flush to soil surface. To encourage predatory beetles, maintain permanent walkways of clover, sod or stone mulch. Protect seedlings with bands of cinders, wood ashes, or diatomaceous earth, renewed frequently, particularly after rain.

Thrips (Family Thripidae)



Greenhouse thrips



Western flower thrips



Damage



Damage

Description: Adults are slender, $\frac{1}{50}$ "- $\frac{1}{25}$ " long insects; colors range from yellowish to brown or black; these fast-moving insects leap or fly away on narrow, fringed wings when disturbed; individual insects are difficult to see with a magnifying glass. Nymphs are similar to small adults; light green or yellow, some with red eyes.

Damage: Adults and nymphs suck contents of plant cells from a variety of garden plants, flowers, fruits, and shade trees. Their feeding leaves silvery speckling or streaks on leaves; severe infestations stunt plants and damage flowers and developing fruit; some species spread tomato spotted wilt virus.

Control: Spray dormant oil on fruit trees; encourage native predators, such as pirate bugs, lacewings, and lady beetles, for onion or western flower thrips, release the predatory mite *Amblyseius cucumeris* or minute pirate bugs; hang blue or yellow sticky traps to catch adults; spray insecticidal soap, pyrethrin, or neem; as a last resort, dust undersides of leaves with diatomaceous earth.

For more info, see **The Organic Gardener's Handbook of Natural Insect and Disease Control**