

Common Vegetable Pests

Colorado Potato Beetle

- Yellow and black striped potato beetle.
- Overwinter in soil as adults.
- Female beetles lay batches of about 2 dozen orange-yellow eggs on the underside of the leaves.
- Each female can lay up to 500 or more eggs over a 4-5 week period.
- Eggs hatch within 4 to 9 days and larvae feed on potato foliage.
- Usually feed in groups and can cause severe damage to potato crops.
- Larvae lasts up to 2 to 3 weeks.
- 5 to 10 days new adult beetle emerges
- Control: crop rotation can significantly reduce beetle numbers, Rotenane dust is also a good way to control Colorado Potato Beetle.



Potato Scab

- Tan to dark brown scabs/lesions doesn't affect the plant or tuber quality but is unsightly.
- Most severe during warm, dry days and at a high ph soil range. Consistent moisture is important when tubers are forming.
- Avoid liming soils and manure/organic matter.
- Amend soil with sulphur.
- If you have had scab - do not grow potatoes in that area for 4 years.



Wireworm on Potato

- Common in areas where sod has been removed, and a garden created.
- Potatoes damaged by larvae of the click beetle.
- Small hole tunneled in the tuber from the wireworm.
- If you have wireworm - do not grow potatoes in that spot for 6 years.
- Water transplants or seeds in when planting with a solution of beneficial nematodes to control pest.



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Cutworms

- Usually cut off the plants stems at the base of the plant.
- The most effective way to control cutworm is to use paper collars on your plants about an inch below and above ground level.
- Cutworms usually infest: cabbages, peppers, tomatoes.
- Water transplants or seeds in when planting with a solution of beneficial nematodes to control pest.



Cabbage Worm

- Affects cabbage, broccoli, kale, cauliflower.
- Green caterpillars chew ragged holes in the leaves.
- BTK is used as a non-chemical control (BTK is a natural parasite of cabbage worms), although they can be handpicked as well.
- Cover seedlings with row cover (white cloth that lets sun and air through, but prevents flies from laying eggs next to seedlings).
- Water transplants or seeds in when planting with a solution of beneficial nematodes to control pest.



Flea Beetles

- Tiny black beetles that jump like fleas when disturbed.
- Primarily found on cole crops (cabbage, broccoli, cauliflower) and potatoes (potato tuber flea beetle).
- Feed on seedlings.
- Potato tuber flea beetles larvae feed on potato tubers, leaving pin sized holes.
- **Flea beetles life cycle:**
 - Flea beetle larvae feed in tubers, exit through tuber and pupate in soil.
 - Early fall the larvae emerge from ground and make homes in soil; this is where they hibernate for the winter.
 - Early spring, the beetles start moving in search for food.
- They feed on leaves, lay eggs in the soil and hatch into tuber feeding larvae.
- Remove all infected plants.
- Rotenone is a great way to help control the problem; but ensure good fall removal of plant debris from soil.



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Aphids

- Attack almost every crop. congregate on the tender parts of plants, often found on the undersides of leaves or near growing points.
- Aphids may be yellow, pink, green, gray or black in appearance.
- Aphids excrete a honeydew onto the plant.
- Aphids are often responsible for spreading virus diseases among plants.
- To control aphids trap with yellow sticky traps, a strong jet stream of water.
- Natural enemies are ladybird beetles and lacewings.
- Can hose off insects.
- Several products; insecticidal soap, pyrethrum, pyrethrins and rotenone work well.



Carrot Rust Fly

- Larvae feed on carrot, celery, parsley and parsnip.
- Larvae feed by tunneling in the roots.
- Insect overwinters in soil as a small brown pupa, late spring tiny flies emerge and lay eggs in soil next to plants.
- Eggs hatch 7-10 days and larvae feed on the roots.
- An infestation may kill young carrots or leave them forked and misshapen.
- After feeding for a month, the Carrot Rust Fly spends the next month as a pupa.
- A second generation emerges in late summer.
- Best control is to till the garden in fall and early spring (expose young pupae).
- Never leave carrots in ground over winter.
- Cover seedlings with row cover (white cloth that lets sun and air through, but prevents flies from laying eggs next to seedlings).
- Water transplants or seeds in when planting with a solution of beneficial nematodes to control pest.



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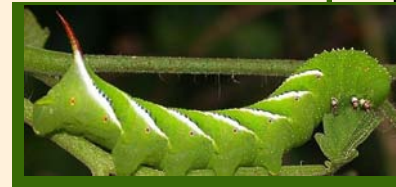
Onion Root Maggot

- Infested plants wilt and may turn yellow and die. onions you'll notice entry holes in the bulb.
- If eggs were laid just before harvest, maggots may hatch and infest bulbs while in storage.
- First generation damage is first seen in mid-late June, eggs are laid in batches in spring next to seedlings, damage is seen in batches.
- 2nd generation damage is in July
- Controlled by a thorough clean up of debris after harvest.
- Cover seedlings with row cover (white cloth that lets sun and air through, but prevents flies from laying eggs next to seedlings).
- Water transplants or seeds in when planting with a solution of beneficial nematodes to control pest.



Tomato Hornworms

- Infest tomatoes, eggplant, pepper and Potatos.
- Are large (up to 4inches long) bright green caterpillars with diagonal white stripes and a horn at the rear.
- Overwinter in the soil as a hard-shelled brown pupae.
- Large moths known as sphinx moths emerge in May or June.
- Females lay eggs on underside of leaves, hatch a week later and feed on foliage and fruit for 3-4 weeks.
- BTK (natural predator that is sprayed on plants) is lethal to hornworms.
- Fall tilling will destroy any pupae in the soil.



Whitefly

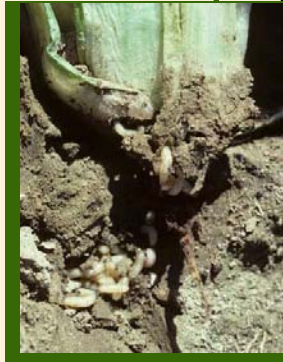
- Attacks several vegetables.
- Tiny white flies hover around plant .
- Infestation often begins at the bottom of a plant and moves upward.
- Insecticidal soap applied every 7-10 days will kill whiteflies, must spray the undersides of the leaves.
- Yellow sticky traps work well for the adult whitefly; hang amongst rows of plants.



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Cabbage Root Maggot

- Attacks cabbage, radish, turnips.
- Overwinters in the soil, emerges in spring as an adult fly.
- Adults start to lay eggs within a week; lay eggs for 5-6 weeks. Eggs are laid at base of plants and hatch within 5-10 days.
- Maggots feed on roots/root hairs. Since eggs are laid over large period, maggots may be present from June to harvest.
- Infested plants may appear stunted and wilt on hot days.
- Use sticky traps in spring to trap flies, till soil in late fall to expose pupae.
- Water transplants or seeds in when planting with a solution of beneficial nematodes to control pest.



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