

Alfalfa caterpillar immature larva

Alfalfa Caterpillar Colias eurytheme Boisduval

Adults are butterflies with yellow or white wings having a black border. Larvae are velvety, green caterpillars up to 38 mm long. They have a narrow, white stripe on each side of the body through which runs a fine, pale red stripe. The larvae eat alfalfa leaves but seldom cause economic damage except in localized areas. Host plants: clover, alfalfa, other forage legumes.



Alfalfa Looper-similar to Cabbage Looper



Damage caused by alfalfa seed chalcid larvae

Alfalfa Seed Chalcid Bruchophagus roddi (Gussakovsky)

Adults are tiny black wasps about 2 mm long. Larvae are white, legless, C-shaped grubs about 2 mm long. The female wasp lays eggs in alfalfa seed, and the larva consumes the inside of the seed. Host plants: alfalfa, legumes.



Immature alfalfa weevil larvae

Alfalfa Weevil Hypera postica (Gyllenhal)

Adults are brownish and about 6 mm long with a medium-sized beak projecting down from the head. There is a triangular, darker brown stripe down the back. Newly hatched larvae are dingy yellow but soon become green with a shiny black head and prominent white stripe along the middle of the back. Adults feed on foliage. Larvae feed within leaf buds of the terminal growth and skeletonize leaves. Large populations can defoliate first-cutting alfalfa, hold back second-cutting regrowth, and lower hay quality. Host plants: alfalfa, clover, other legumes.

Host plants: cereals, grasses, legumes, sugarbeets.



Immature form of army cutworm

Army Cutworm Euxoa auxiliaris (Grote)

The caterpillar is up to 40 mm long. It has a light brownish-gray head with pale brown spots. The body is pale grayish with white splotches and a brown-tinged top line. The lower portion of the body has darker, top-lateral stripes and an indistinct band of white splotches. Adults are brown to gray miller moths. The larvae feed on leaves at night and hide under debris or soil during the day.



Ashgray blister beetle adult

Ashgray Blister Beetle Epicauta fabricii (LeConte)

This beetle is similar to other <u>blister beetles</u> but the adults are ashy gray and 10 to 15 mm long.



Barley thrips adults

Barley Thrips Limothrips denticornis (Halliday)

Adults are dark brown to black and 1.2 to 1.8 mm long. Immatures are white. All forms differ from other thrips in having a tooth-like projection from the third antennal segment. Feeding on **barley** occurs under the top two leaf sheaths and causes the upper portion of the plant to turn white. Barley heads sometimes do not emerge properly from damaged plants.



Colony of bean aphids

Bean Aphid Aphis fabae Scopoli

Mature aphids are dark olive-green to black, 2 to 2.5 mm long, with alternating white and dark areas on the legs. Immature aphids are uniformly gray-green to olive-green. Bean aphids are common on sugarbeets and beans. They cause damage by sucking plant juices and weakening the plants. Host plants: dock, beans, corn, sugarbeets, snowball bush, lambsquarters, pigweed



Leaves appear brownish and/or silvery where the thrips have fed

Bean Thrips Caliothrips fasciatus (Pergande)

Adult bean thrips are 1 mm long, cigar-shaped, and dark brown. The front wings have two light- and three dark-brown areas. Nymphs are light yellow-green with red markings on their top side. Plant tissues are damaged when thrips rasp the epidermal cells causing a whitening or "silvering" and desiccation of the leaf surface. **Host plants: beans, other legumes, grasses, field and forage crops.**



Beet armyworm immature larva

Beet Armyworm Spodoptera exigua (Hübner)

Mature caterpillars are 50 mm long with light stripes along the body. They are similar to the <u>western yellowstriped armyworm</u> but lack the inverted "Y" on the head. Adults are grayish-brown moths. The larva feeds on leaves causing plant defoliation. **Host plants: sugar beets, alfalfa, hops, vegetables.**



Beet leafhopper adult

Beet Leafhopper Circulifer tenellus (Baker)

These gray-green, wedge-shaped insects are about 3 mm long. The beet leafhopper or "white fly" is the vector of curly top virus to beans and sugarbeets. Direct feeding damage is not of economic importance. This leafhopper overwinters on Russian thistle and other plants in weedy or waste areas and rangeland. In late spring the leafhopper migrates long distances to summer host plants, transmitting curly top virus to all susceptible crops. Host plants: sugarbeets, Russian thistle, tomatoes, povertyweed, lambsquarters, beans, filaree, melons, mustard, nightshade, squash.



Immature larva of beet webworm

Beet Webworm Loxostege sticticalis (Linnaeus)

Adults are grayish-brown moths about 12 mm long. Full-grown webworm larvae are up to 25 mm long, olive-green, and have black and white tubercles and light and dark longitudinal stripes running the length of the body. The larvae skeletonize leaves of many plants. Damage occurs in mid-season on sugarbeets. **Host plants:** sugarbeets, carrots, cabbage, beans, peas, potatoes, spinach.



Immature larva of bertha armyworm

Bertha Armyworm Mamestra configurata Walker

Mature caterpillars are about 30 mm long, dark on top, and have a yellow-orange stripe on the side and mottled gray or green on the bottom. Young larvae may be green, brown, or black with a light brown or tan head capsule. There is no white "Y" on the front of the head. Adults are brown "miller" moths. Larvae feed on leaves and defoliate plants. The larvae are often found feeding on crops and weeds in late summer or early fall during the daytime. Host plants: rape, legumes, sugarbeets, hops, cabbage, corn, peas, beans.



Bird cherry-oat aphid colony

Bird Cherry-Oat Aphid Rhopalosiphum padi (Linnaeus)

These olive-green to black aphids are about 2 mm long and have a characteristic orange or red band across the back of the abdomen. They are a fall pest of cereal grains and the principal vector of barley yellow dwarf virus. Large populations migrate from corn in the fall to winter cereal crops. **Host plants: cereals, corn, grasses, bird-cherry.**



Black cutworm immature and corn seedling damage

Black Cutworm/Greasy Cutworm Agrotis ipsilon (Hufnagel)

Mature larvae are pale gray to black caterpillars up to 40 mm long. Their skin has shiny granules and a generally greasy appearance. Larvae have a pale brown head with black markings. Adults are dull-red to brownish-gray moths. Larvae cut plants off at or below ground level or tunnel in stems. Host plants: corn, sugarbeets, potatoes, beans, grasses, alfalfa.



Blue alfalfa aphid colony

Blue Alfalfa Aphid Acyrthosiphon kondoi Shinji

This aphid resembles the pea aphid but is more bluish green and 3 to 3.5 mm long. It is generally abundant in early season or cooler weather and found primarily on young shoots and terminal leaves. Sap sucking by this aphid causes stunting or wilting and leaf drop. Large amounts of honeydew are produced. This aphid's distribution and damage are localized. Host plants: peas, lentils, alfalfa, clover, wild legumes.



Brown wheat mite

Brown Wheat Mite Petrobia latens (Müller)

Dark mites, 1 mm long, with front legs longer than the body. Feeding injury causes a mottling of the leaves giving them a bronzed or yellow appearance. Injury occurs early in the season, many times on hills in grain fields where moisture stress is more likely. Damage is more severe in cereal and cereal rotations or along margins of fields where grass or cereal was grown the previous year. Host plants: cereals, onions, carrots, alfalfa, iris, gladiolus.



Cabbage aphid colony

Cabbage Aphid Brevicoryne brassicae (Linnaeus)

These aphids are pale green and up to 3 mm in size. They are covered with a grayish "bloom" of wax secreted from their skin. Colonies feeding on canola can stop terminal growth, reducing plant size and yield. Leaves and other plant parts can be curled or deformed when populations become large.



Adult cabbage looper

Cabbage Looper Trichoplusia ni (Hübner)

Larvae are light to dark green and sometimes have white stripes on the back and sides. Mature larvae are about 35 mm long. Only two pairs of prolegs occur on the abdomen, compared with four pairs on the cutworms and armyworms. Adults are gray "miller" moths. Larvae feed on leaves of several crops. Host plants: cabbage, spinach, sugarbeets, peas, celery, potatoes, alfalfa, beans, ornamentals, mint.



Cabbage seedpod weevil larva in pod (left) and adult (right)

Cabbage Seedpod Weevil Ceutorhynchus assimilis (Paykull)

Adults are gray weevils, about 3 mm long, with a pronounced snout. They feed on flowers, buds, stems, and pods. Larvae are C-shaped legless grubs, have a brown head, and are up to 3 mm long. They feed on seeds in the pod and make an exit hole in the pod when they emerge. There is one generation per year.



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Cereal leaf beetle adult (left) and larva (right)

Cereal Leaf Beetle Oulema melanopus (L.)

These metallic blue-black and red beetles are about 4 mm long. They feed on all cereal crops but tend to prefer barley. Overwintering adults appear in the spring, feed, and lay yellowish eggs. Damage is a characteristic removal of green tissue from between the leaf veins. Larvae are small (4 mm), yellow, humpbacked insects that resemble <u>Colorado potato beetle larvae</u>. They cover their top sides with dark, slimy fecal material. Like the adults, they remove green material from between the leaf veins, but their feeding scars are more ragged.



Immature clover leaf weevil

Clover Leaf Weevil Hypera punctata (Fabricius)

Adults are brown, up to 10 mm long, and have a long snout. They are similar to and larger than alfalfa weevil adults but do not have the dark stripe down the back. Larvae are green with a dark brown head and a white stripe down the back. This insect occurs in early season and is seldom numerous enough to cause damage. **Host plants: white clover, red clover, alfalfa, beans.**



Clover root curculio adult

Clover Root Curculio Sitona hispidulus (Fabricius)

The larvae are fat, C-shaped, legless grubs about 5 to 6 mm long. They are white with a brown head. Adults are short, slender weevils 3 to 5 mm long with short, broad snouts. They are brownish-black and covered with grayish hair and scales. The larvae destroy alfalfa rootlets and nodules and often girdle tap roots, exposing the roots to invasion by disease organisms. **Host plants: clover, alfalfa.**



Feeding larvae of Colorado potato beetle

Colorado Potato Beetle Leptinotarsa decemlineata (Say)

The adult beetle is about 10 mm long and 9 mm wide, ovate, convex, and hard-bodied. It is yellowish with 10 black stripes on its wing covers. The sluglike larvae are cherry red except for glistening black heads and feet. As the larva grows, the body color changes to a yellowish-red or orange. Adults and larvae feed on leaves of potatoes and other plants in the potato family. Host plants: potatoes, tomatoes, eggplant, nightshade.



Corn earworm immature larva and damage

Corn Earworm Helicoverpa zea (Boddie)

Larvae are caterpillars about 35 mm long with light and dark stripes along the body. The color can vary from green, tan, or pink to dark brown. Adults are tan-colored moths. The larva feeds on or burrows into many above-ground vegetables. Damage is usually more severe in light soils and populations are very cyclic. Host plants: corn, tomatoes, beans, eggplant, cabbage, fruits, peas, peppers, ornamentals, squash, strawberries.



Cowpea aphid colony on pod

Cowpea Aphid Aphis craccivora Koch

These aphids are shiny black, 2 to 2.5 mm long, with the first half of the antennae and all of the legs pale yellow or white. Immature forms may be lime green. Damage is caused by large numbers sucking plant sap and weakening plants. Host plants: lentils, alfalfa, clover, beans, cowpeas, dandelions, lambsquarters, mustard, peas.





Diamondback moth larva (top) and adult (bottom)

Diamondback Moth Plutella xylostella (Linnaeus)

Larvae are pale green and grow to 8 to 10 mm in length. Larvae hang/drop by a silk thread when disturbed and wriggle vigorously. They have light, raised spots on the body, and each spot has a distinct stiff black hair growing from it. Small larvae first feed on leaves but move to buds, flowers, and pods as they mature. Moths are small and light-brown. Light areas on the wings form diamond shapes when the wings are at rest over the body.



English grain aphid colony on wheat head

English Grain Aphid Sitobion avenae (Fabricius)

These green, yellowish-green, red, or purple aphids are 2.5 to 3 mm long. Cornicles and antennae are black, legs mostly black. These aphids infest leaves early but suck sap from grain heads as soon as heads emerge. They migrate from winter cereals to spring cereals and can also serve as a vector of barley yellow dwarf virus. **Host plants:** cereals, roses, cattails, wild grasses.



Adult earwig and colony

European Earwig Forficula auricularia Linnaeus

Adults are 18 mm long. The body is reddish-brown. The legs, antennae, and wing covers are yellowish brown. A pair of so-called "forceps," or pincers, is on the rear of the body. Earwigs skeletonize leaves of many plants during the night. Corn silks are also a favorite food. Damage is usually restricted to field margins. **Host plants: beans, corn, tree fruits, ornamentals, potatoes, alfalfa.**



False celery leaftier larva

False Celery Leaftier *Udea profundalis* (Packard)

Mature larvae are caterpillars up to 20 mm long. They are light green with a wide, white stripe down the back. Adults are tan to dark brown moths similar to mint root borer moths. Larvae feed on the undersides of leaves and tie leaves together. Host plants: beets, sugarbeets, beans, spinach, mint.



False chinch bug

False Chinch Bugs *Nysius* spp.

Adults are grayish-brown, narrow-bodied, and about 4 mm long. Nymphs are stubby, up to 3 mm long, gray, and with minute red markings. They are generally seen by the thousands, moving from waste areas to crops. They suck plant juices of many crops in late summer or fall, causing wilting. **Host plants: alfalfa, clover, cereals, grasses, potatoes, sugarbeets, several weeds.**



Garden symphylan adult

Garden Symphylan Scutigerella immaculata (Newport)

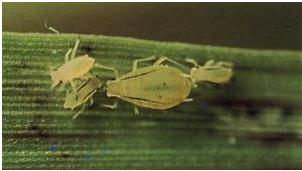
Garden symphylans are small, centipede-like arthropods with many legs. They are white and about 3 to 6 mm long with long antennae. These soil inhabitants quickly run from light. Damage occurs when symphylans feed on roots, root hairs, rootlets, or tubers. Damage can occur throughout the growing season. **Host plants: beans, peas, potatoes, corn, sugarbeets, small fruits, specialty crops.**



Immature green peach aphid

Green Peach Aphid *Myzus persicae* (Sulzer)

This aphid is light yellowish-green or sometimes pinkish, teardrop-shaped, and 1.5 to 2.5 mm long. Small tubercles located at the base of the antennae distinguish green peach aphids from most other aphids. Winged forms migrate from peach and apricot trees to several vegetable crops in the spring. This aphid sucks plant sap and is an efficient vector of several plant viruses such as potato leafroll virus, which causes net necrosis in potato tubers, and sugarbeet yellow. Host plants: cabbage, eggplants, peppers, mustard, spinach, potatoes, tomatoes, peaches, prunes, apricots, sugarbeets.



Greenbug colony

Greenbug Schizaphis graminum (Rondani)

These are lime-green aphids about 2 mm long with a darker green stripe down the middle of the back. Cornicles are short. Legs and cornicles have black tips. Their saliva is toxic and kills the plant at the feeding site, causing purplish-brown discoloration of the foliage. It can serve as a vector of barley yellow dwarf virus. **Host plants: cereals, bluegrass, sorghum, buckwheat.**



Hessian fly larvae and damage

Hessian Fly Mayetiola destructor (Say)

Larvae are up to 2 mm long, white, and have a greenish stripe down the back. Adults are fragile, reddish-brown flies 2 to 3 mm long. Larvae feed in the stems at the plant crown, causing stems to break. When the dark brown pupa is found between the stems and leaf sheaths at the base of the plant, it is called the "flax seed" stage. Populations are higher on early seeded fall grains, late-seeded spring grains, and in no-till farming. Host plants: cereals, grasses.



Intermountain potato leafhopper adult

Intermountain Potato Leafhopper Empoasca filamenta Delong

These insects are green and wedge-shaped, with white markings. Adults are 4 mm long. Adults and nymphs feed on the undersides of leaves, causing a stippling or speckling of the leaf surface. They can occur in potatoes from May to September.

Host plants: potatoes, tomatoes, nightshade.



Leather jacket larva on potato

Leather Jackets/Crane Fly Larvae *Tipula* spp.

Larvae of crane flies are elongate, grayish-white, and up to 40 mm long. Short, fleshy protuberances are present on the rear of the body. Adults are reddish brown flies 25 to 30 mm long that resemble giant mosquitoes. Damage occurs when larvae burrow into tubers or feed on roots. Low or wet areas of fields are likely spots for leather jacket damage. **Host plants: grasses, cereals, potatoes, alfalfa.**





Lygus bug nymph (top) and adult

Lygus Bugs Lygus spp.

Adult lygus bugs are 6 to 7 mm long and vary in color from a pale yellowish-green to a dark reddish-brown. An easily recognized marking is a yellowish, triangular-shaped area on top of the body at the base of the wings. The young nymph is shiny green and moves very rapidly, in contrast to aphids. Lygus bugs suck sap from tender leaves, buds, stems, and seeds often causing stem or leaf death, aborted flowers, or distorted seed. Host plants: alfalfa, clover, beans, peas, lentils, potatoes, sugarbeets, grasses, fruits, seed crops.





Mexican bean beetle larva (left) and adult

Mexican Bean Beetle Epilachna varivestis Mulsant

The adult is 6 to 8 mm long, hemispherical, and yellow to coppery brown with 16 black spots arranged in three rows across its wings. This insect has no red or white markings. The larva is oval, yellow, and has six rows of long, branching, black-tipped spines on its body. Feeding damage is characterized by the skeletonized undersides of bean leaves, but pods may also be attacked. It is not yet an agricultural pest in the Pacific Northwest. **Host plants: beans, cowpeas, soybeans.**



Colony of mint aphids

Mint Aphid

Ovatus crataegarius (Walker)

These aphids are 1.5 to 2 mm long and yellow-green to pale green with darker green mottling. Large numbers of these aphids suck plant sap causing stunted plant growth, curled leaves, and damaged buds. Large amounts of honeydew can cause secondary problems. **Host plant: mints.**



Mint flea beetle adult

Mint Flea Beetle Longitarsus waterhousei (Kutschera)

Adults are 2.5 mm long and brownish-yellow with a dark head. The hind legs are modified for jumping. Mature larvae are slender with a brown head and legs and are about 5 mm long. Larvae cause damage by feeding on underground roots and stems.



Adults chew small holes in leaves. **Host** plants: mint.

Mint root borer larva and damage

Mint Root Borer Fumibotys fumalis (Guenée)

Young larvae are 2 to 3 mm long, yellow to light green with dark stripes down the back. Older larvae are up to 19 mm long, yellow-tan with a red-brown head. Adults are light to dark brown moths with a 20-mm wing span. Young larvae feed on leaves and old larvae burrow in rhizomes. **Host plants: mints.**





Mint stem borer adult (bottom) and larva in stem (top)

Mint Stem Borer Pseudobaris nigrina (Say)

Adults are small, black, snout-nosed beetles about 2 mm long. Larvae are about 3 to 5 mm long, slender, white, legless, and have a brown head capsule. Adults feed on leaves, and larvae burrow inside the stems of the mint plant just above the soil line. Occasionally they bore into the below-ground rhizomes. **Host plants: mint, kochia, goldenrod.**



Nuttall blister beetle

Nuttall Blister Beetle Lytta nuttalli (Say)

Adults are metallic green or purplish beetles about 16.5 to 28 mm long with violet body margins. The larvae are predacious on grasshopper eggs, are seldom seen, and have several distinct forms. Adults feed on plant foliage and flowers. Problems generally occur where crops are grown next to rangeland or grasshopper breeding areas.

Host plants: alfalfa, corn, potatoes, beans, peas, onions, carrots, peppers, radishes, cereals, ornamentals.



Pea aphid colony

Pea Aphid Acyrthosiphon pisum (Harris)

The pea aphid is a large aphid, about 3.5 to 4 mm long. The antennae and legs are quite long and slender. This species sucks sap. Injury to lentils, peas, or alfalfa appears as yellowish or stunted plants with some wilting. Reduced yields occur with heavy infestations. The pea aphid is also a vector of several legume virus diseases.

Host plants: alfalfa, red clover, peas, lentils, vetch.



Pea leaf weevil adult

Pea Leaf Weevil Sitona lineatus (Linnaeus)

Adults are grayish-brown, slender weevils about 5 mm long with a short snout. Three light, inconspicuous rows of small scales run lengthwise on the thorax and tend to extend onto the wing covers. Wing covers are marked lengthwise by parallel striations. Larvae are small, milky-white, C-shaped, legless, and up to 5 mm long. Adults chew notches out of pea leaf margins, and larvae feed on rhizobial root nodules of peas. Adults can also defoliate new-seeding alfalfa, causing stand loss or death. **Host plants: peas, alfalfa, clover, faba beans, vetch.**



Wingless potato aphid adult

Potato Aphid *Macrosiphum euphorbiae* (Thomas)

Potato aphids are large, green, football-shaped aphids 2.5 to 3.5 mm long. They are an efficient transmitter of potato virus Y, but not of potato leafroll virus. This species occurs on potatoes, but nightshade is the preferred host. Damage is caused by the aphid's sucking plant sap; large populations predispose the plant to wilt and sunburn and will reduce yields. **Host plants: apples, beans, clover, corn, nightshade, peas, pigweed, lambsquarters, potatoes, shepherdspurse.**



Punctured blister beetle adult

Punctured Blister Beetle Epicauta puncticollis

Adults are only 7 to 11 mm long and black with bluish iridescence. The life cycle is similar to that of the other blister beetles.



Immature redback cutworm

Redbacked Cutworm Euxoa ochrogaster (Guenée)

This caterpillar is brownish or grayish with a yellow brown head. It is up to 40 mm long. The back is usually reddish or reddish-brown bordered with dark bands. Adults are dirty yellow to dark red moths. Larvae feed on leaves at night and are found in the soil during the day. Damage generally occurs in early to late spring. **Host plants: sugarbeets, alfalfa, clover, corn, cereals, mint, rape, mustard.**



Rose grass aphid adults

Rose Grass Aphid Metopolophium dirhodum (Walker)

These are light-green aphids about 3 mm long with elongated legs and cornicles. Legs, antennae, and cornicles are entirely pale. This aphid resembles the greenbug but is lighter in color and larger. It sucks sap from cereal plant leaves. Host plants: cereal grains, roses, grasses.



Russian wheat aphid

Russian Wheat Aphid Diuraphis noxia (Mordvilko)

This aphid is pale green and up to 2 mm long. Cornicles are very short, rounded, and appear to be lacking. There is an appendage above the cauda giving the aphid the appearance of having two tails. The saliva of this aphid is toxic to the plant and causes whitish striping on cereal leaves. Feeding by this aphid will also cause the flag leaf to turn white and curl around the head causing incomplete head emergence.

Host plants: cereals, grasses, wheatgrasses.



Saltmarsh caterpillar larva

Saltmarsh Caterpillar Estigmene acrea (Drury)

The larvae are "woolly bears" 37 to 50 mm long when mature. These caterpillars appear to be covered by long, reddish-brown or black hairs. They have yellowish spots forming two broken lines down the sides. The adult is a large, robust, white moth. Larvae eat leaves of many crops. **Host plants: beans, peas, sugarbeets, potatoes, alfalfa.**



Seedcorn beetle adult

Seedcorn Beetle Stenolophus lecontei (Chaudoir)

Adults are small, slender, flattened, brown to dark brown, and sometimes striped ground beetles about 8 mm long. They cause damage mainly in the spring by feeding on newly planted corn seeds and hollowing them out. Damage usually occurs when poor quality seed has been planted and/or when cool, wet weather prevails. Damage can be avoided by planting good seed in warm soil.



Seedcorn maggot larva and damage

Seedcorn Maggot Delia platura (Meigen)

The adult fly is 5 mm long, gray, and has black legs. Larvae are maggots up to 6 mm long, white, legless, and taper from rear to front. The larvae burrow into and feed in the sprouting seeds and seedlings. Damage is most prevalent in soil with abundant organic matter and in cold, wet springs. **Host plants: beans, corn, potatoes, cereals, beets, radish, peas.**

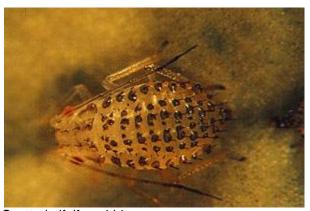


Spinach leafminer larvae and damage

Spinach Leafminer Pegomya hyoscyami (Panzer)

Adults are slender gray flies about 6 mm long. Larvae are small, white, flattened maggots up to 8 mm long. The larvae feed between the lower and upper leaf surfaces. Loss of foliage from heavy infestations may retard plant growth and reduce yield.

Host plants: sugarbeets, spinach, beets, lambsquarters, nightshade.



Spotted alfalfa aphid

Spotted Alfalfa Aphid Therioaphis maculata (Buckton)

The spotted alfalfa aphid is about 2 mm long, pale yellow, and has four to six rows of dark spots on its back. It is usually found on stems and leaves on the lower portions of the plant. It sucks plant sap and secretes large amounts of honeydew. Its toxic saliva kills seedling plants and may lower the productivity of established fields.

Host plants: alfalfa, clovers.



Adult spotted blister beetle

Spotted Blister Beetle Epicauta maculata (Say)

This species is similar to the <u>Nuttall blister beetle</u>, but adults are black and covered with whitish hairs except where small black spots show through on the wing covers and body.



Spotted cutworm immature larva

Spotted Cutworm *Xestia* spp.

This caterpillar is up to 40 mm long with a whitish head having dark markings. The body is pale brownish to ashy gray. Its back has a double row of oblique triangular marks that increase in size and prominence to the rear. The lower portion of the body is abruptly lighter in color. Adults are grayish "miller" moths. The larva eats leaves and defoliates plants. Host plants: clover, sugarbeets, mint, corn, cereals, potatoes, beans, peas, alfalfa.



Adult stinkbug

Stinkbugs various species

Adults are green, gray, or brown; shield-shaped; and about 15 mm long. The body appears hardened except for the rear portion of the forewings, which are overlapped over the rear of the abdomen. Young nymphs are rounded and convex like ladybugs and are often found in clusters or groups. Older nymphs resemble the adults but have no wings and are slightly more rounded. Both adults and nymphs suck sap from buds, pods, seeds, or fruit causing deformed or shriveled seeds and fruit.

Host plants: alfalfa, beans, cow peas, cereals, peas, corn, fruits.





Strawberry root weevil larva (top) and adult

Strawberry Root Weevil Otiorhynchus ovatus (Linnaeus)

Adult weevils are about 5 mm long with a conspicuous curved snout. They are dark brown to black with reddish legs. Larvae are fat, C-shaped grubs, 6 to 7 mm long and have a distinct brown head. Adults feed on leaves, and larvae chew on and tunnel in roots. **Host plants: strawberries, caneberries, mint, hops, shrubs, ornamentals.**



Sugarbeet crown borer larva and damage (left) and moth (right)

Sugarbeet Crown Borer Hulstia undulatella (Clemens)

Adults are small gray moths about 12 mm long. A small red spot usually appears near the base of the forewing, and several zigzag lines are found near the wing margin. Larvae are dirty brown, slender, somewhat flattened, and sometimes tinted green. Larvae feed on the plant crown just under or just above ground level. They are usually found in dust-covered silk tunnels. The first spring generation is the most damaging.



Colony of sugarbeet root aphids

Sugarbeet Root Aphid Pemphigus populivenae Fitch

This aphid is found on the roots. It is pale yellow and surrounded by a white, mold-like wax. Several generations are produced on sugarbeet roots each season. When the aphids suck sap from the roots, the leaves become light or yellowish-green, wilt, and sometimes die. Infested beets are usually short and have many hair roots.

Host plants: sugarbeets, dock, grasses, poplar.



Sugarbeet root maggot adult (left) and typical root damage

Sugarbeet Root Maggot Tetanops myopaeformis (Röder)

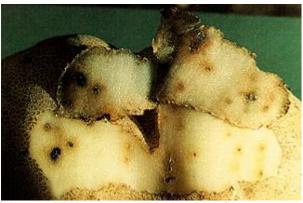
Larvae are white maggots up to 6 mm long, tough skinned, and firm to the touch. Adults occur in May and June and are shiny black, 6 mm long, with red eyes and a dark spot on the front edge of the wings. Larvae rasp the beet root and often cut off the tap and feeder roots on young beet plants. **Host plants: sugarbeets, spinach, pigweed.**



Sugarbeet wireworm larva

Sugarbeet Wireworm *Limonius californicus* (Mannerheim)

Larvae are slender, cylindrical, up to 25 mm long, shiny, yellow to brown, hard-bodied "worms" with small legs. Usually their last segment is somewhat elongated with short, stout appendages on the end. Damage occurs as they tunnel in or feed on seeds, roots, seedlings, and tubers. Host plants: potatoes, beans, sugarbeets, corn, cereals, red clover.



Injury to potato tuber caused by tuber flea beetle

Tuber Flea Beetle Epitrix tuberis Gentner

Adults are metallic bronze and 2 mm long. Larvae are slender, white, and about 5 mm long. Damage is similar to that of the western potato flea beetle, but this larva can burrow up to 12 mm into a potato tuber, causing more serious damage.

Host plants: potatoes, nightshade, tomatoes, beans, carrots, cabbage, clover, corn, radishes.



Turnip aphid colony

Turnip Aphid Hyadaphis erysimi (Kaltenbach)

This aphid is pale green, 2 to 3 mm long, and has large, dark, elongated spots on the back. It may have a small amount of waxy "bloom" on the body. Feeding causes leaf curling and stunting of plants when populations become large. **Host plant: canola.**



Colony of twospotted spider mites

Twospotted Spider Mite Tetranychus urtlcae Koch

These microscopic, eight-legged mites are lemon green in color and have a black spot on both sides of their bodies. Several spider mites in the Pacific Northwest have this general appearance. For simplicity, complexes of mite species are often referred to as one species. Damage usually starts on the underside of the leaf and heavy infestations produce abundant webbing. Mites suck sap from the cells causing a yellow stippling and eventual desiccation of the leaf.

Host plants: alfalfa, beans, peas, sugarbeets, potatoes, ornamentals, fruit, cereals, corn.



Immature form of variegated cutworm

Variegated Cutworm Peridroma saucia (Hübner)

This caterpillar is about 40 to 50 mm long when mature and gray to dull brown with black stripes along the side. It also has a row of yellow to orange spots along the top line and a prominent black "W" on top of the last body segment. Adults are brown "miller" moths. Larvae feed on the plants above ground, causing defoliation, but are found in the soil during the day.

Host plants: sugarbeets, beans, potatoes, legumes, mint, cereals.





Western bean cutworm (top) and typically damaged beans

Western Bean Cutworm Richia albicosta (Smith)

The larvae are pinkish-brown caterpillars up to 40 mm long. The segment right behind the head has three longitudinal, white stripes on a dark shield. Adults are brown "miller" moths with light areas on the front of the wings. Small larvae eat holes in leaves. Larger larvae eat through bean pods and feed on bean seeds and also burrow into corn ears at various locations on the ear. **Host plants: beans, corn, tomatoes.**





Western corn rootworm immature (left) and adult

Western Corn Rootworm Diabrotica virgifera virgifera LeConte

The adult beetles are about 6 mm long, slender, and yellowish-green with three dark stripes, or a dark area formed by the merger of these three stripes, on the back. The larvae are slender, threadlike worms up to 12 mm long. They are white to pale yellow with a brown head and terminal abdominal segment. Larval feeding on corn roots reduces yields directly and predisposes the roots to stalk rot and the plants to lodging. Adults feed on the developing silks, which may prevent pollination, causing missing kernels and severely reduced yields. **Host plants: corn, wild barley, other grasses.**



Adult western flower thrips

Western Flower Thrips Frankliniella occidentalis (Pergande)

Flower thrips are cigar-shaped and around 2 mm long. Adults are tan, and nymphs are white. They occur in several crops and are generally of minor or transient importance. They feed on the blossoms and on the surface of leaves by rasping and puncturing the cells of the plant surface causing a "silvering" where they have fed.

Host plants: beans, peas, corn, cereals, potatoes, alfalfa.



An adult western potato flea beetle

Western Potato Flea Beetle Epitrix subcrinita LeConte

Adults are small, metallic greenish-black beetles about 2 mm long that hop when disturbed. Larvae are slender, white, up to 5 mm long, and have brown heads. Adults chew small "shot holes" in leaves, and larvae feed on roots or tubers. Feeding injury is just under the skin on the potato tuber.

Host plants: potatoes, tomatoes, nightshade, beans, carrots, cabbage, clover, corn, radishes.

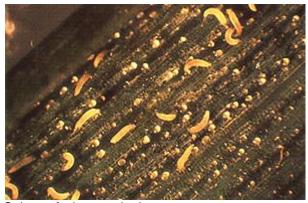


Western yellowstriped armyworm, immature larval form

Western Yellowstriped Armyworm Spodoptera praefica (Grote)

Mature caterpillars are 50 mm long with velvety black stripes on top and yellow stripes along the sides of the body. They have an inverted white "Y" on the front of the brown head capsule. Adult moths are gray- or brown-mottled "miller" moths. The caterpillars feed on leaves during the day and can defoliate entire plants.

Host plants: peas, beans, lentils, alfalfa, sugarbeets, potatoes.



Colony of wheat curl mites

Wheat Curl Mite Aceria tosichella Keifer

Microscopic, white, spindle-shaped mite; all stages found in curled leaf margins, unopened leaves, between sheaths, etc. Primarily of importance because it vectors wheat streak mosaic virus, which reduces yields. Large numbers sucking plant sap can cause curled, rolled, or trapped leaves.

Host plants: cereals, corn, tulips, onions, garlic, wheatgrass, other grasses.



Wheat sawfly larva feeding

Wheat Sawflies Pachynematus spp.

Adults are black and tan stout-bodied sawflies about 12 mm long that resemble bees. Larvae are light green, up to 15 mm long, and caterpillar-like. They have six pairs of abdominal prolegs. Damage is caused by larvae feeding on leaf blades, causing defoliation of cereal crops. **Host plants: cereals, grasses.**



Wheat stem maggot larvae (left) and typical damage

Wheat Stem Maggots *Meromyza* spp.

Adults are small flies, about 5 mm long, and light to dark green with a dark stripe on top of the thorax. Larvae are pale green maggots up to 6 mm long. Damage is caused by larvae feeding in the stem, killing the central shoot of young plants and preventing proper head development ("white heads") in older plants. **Host plants: cereals, grasses.**



White grub larva

White Grub Polyphylla decemlineata (Say)

The larvae are white, C-shaped, up to 50 mm long, and have prominent brown head and legs. Adults are June beetles. Damage can occur throughout the growing season because of the one or two years spent in the soil as grubs. Damage occurs as tuber or root feeding by the larvae and is more prevalent in newly broken pasture or sandy ground where organic matter is abundant.

Host plants: potatoes, grasses, corn, sugarbeets, ornamentals, fruit trees.



Zebra caterpillar larvae

Zebra Caterpillar *Melanchra picta* (Harris)

Adults are reddish-brown and gray moths. Larvae are up to 35 mm long with reddish legs and head. Their bodies have black and yellow stripes with white reticulations. The larvae eat leaves of plants during the day; large infestations defoliate plants. Spotty damage occurs in August and September, primarily on sugarbeets.

Host plants: sugarbeets, clover, cabbage, beets.