

# Alfalfa Insects II

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**1. Pea Aphid**



**2. Spotted Alfalfa Aphid**



**3. Cowpea Aphid**



**4. Blue Alfalfa Aphid**



Nymph



Adult

**5. Potato Leafhopper**



**6. Plant Bug**

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**Insects****Identification**

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**Pea Aphid***Acyrtosiphon pisum* (Harris)

**Adult:** Light green to yellow-green, largest aphid species found in alfalfa with long legs and antenna, up to ¼ inch long. Antennae have narrow dark bands at the end of each segment. A pink to red variant has also been reported. Populations occur during the summer and decline when daytime temperatures reach 85°-90° F. Damage appears as leaf yellowing and plant stunting. High population densities may cause wilting and plant death.

**Spotted Alfalfa Aphid***Therioaphis maculata* (Buckton)

**Adult:** Light tan with six rows of dark spots along the back of the body, about ¼ to ⅓ inch long. This aphid species has the greatest potential to cause loss of alfalfa stands. During the summer and fall, this warm season aphid species can reproduce and increase population levels even when daytime temperatures exceed 85°-90° F. Populations occur in greatest number on leaves and stems in the lower portion of the plant canopy, near the soil surface. Feeding causes a toxic reaction in alfalfa which results in chlorosis, leaf drop, and plant death when high population levels are present. Vein-banding in newly formed leaves emerging from plant terminals is a distinctive symptom of damage. Also produces large amounts of honeydew.

**Cowpea Aphid***Aphis craccivora* Koch

**Adult:** Dark grey to shiny black, about ⅓ inch long. Antennae and legs are whitish with blackish tips. Populations usually decrease rapidly when daytime temperatures exceed 70-75° F. However, a new biotype capable of reaching damaging levels in summer may be present. Prefers to feed on leaves near plant terminals and on stems. Injects a toxin into the plant while feeding and, when populations are large, this can stunt or kill plants. Also produces a considerable amount of honeydew upon which sooty mold grows.

**Blue Alfalfa Aphid***Acyrtosiphon kondoi*

**Adult:** Blue-green to green, somewhat smaller than the pea aphid with long legs and antenna. Antennae gradually become darker toward the tips or appear uniform brown in color. Most abundant from March through June, populations decline rapidly when daytime temperatures reach 85-90° F. Symptoms include the crinkling of leaflets near plant terminals, grayish discoloration of foliage, and stunting of plant growth. In the southern Great Plains, a virulent biotype is capable of more severe injury and plant mortality with loss of stands is quite common.

**Potato Leafhopper***Empoasca fabae* (Harris)

**Adult:** Wedge-shaped and pale green with tiny white spots on and just behind the head, about ⅓ to ⅜ inch long.

**Nymph:** Wingless, otherwise similar to adults. Newly hatched nymphs are tiny and pale; develop wing-like outgrowths as they pass through five molts.

**Damage:** Adults and nymphs injure alfalfa by inserting their mouthparts and injecting saliva which disrupts the flow of water and nutrients inside the plant. The first sign of damage is a yellow discoloration of the leaflets that begins at the tip and progresses toward the base in a v-shaped pattern. This is referred to as "hopperburn." As damage continues to develop, the discolored areas become purplish in color and, if severe enough, the leaflet will turn brown and die. Severely affected plants become stunted and entire stems or plants may eventually die.

**Plant Bug***Lygus* spp.

**Adult:** True bugs, color varies from green with darker shading to brown with black markings, forewings held flat over the body, with a distinct triangular area at the base of the forewings, varies from ⅓ to ⅔ inch long.

**Nymph:** Wingless, pale to green, often with black dots, begins to resemble the adult as it matures.

**Damage:** Both adults and nymphs may injure alfalfa through the insertion of piercing-sucking mouthparts and the removal of plant liquids and injection of saliva. Minor pests of alfalfa grown for forage, but important pests of alfalfa grown for seed production. Symptoms include foliar distortion and necrosis as well as reduced stem length, plant stunting, and vigor. Lygus feeding may also cause alfalfa blossoms to drop and punctured seeds may fail to germinate.

**Photo Credits:** Pea aphid, spotted alfalfa aphid, and cowpea aphid photos used with permission from University of California Statewide IPM Program, J. K. Clark, photographer