

Picture Tour: Bean Insect Damage

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Images of: Leaf hoppers, Plant bugs, Bean beetles, Maggots

LEAF HOPPERS



Potato Leafhoppers

Potato leafhopper is the major dry bean pest in Michigan. PLH do not overwinter in the Midwest but are carried in each spring by southerly winds. The adult leafhopper is yellowish green and about 1/8 inch long with a row of six white spots just behind the head. Nymphs are smaller versions of the adult, lacking wings and ability to fly. The development time between the egg and adult stage is usually 25 to 30 days, depending on the weather.



Leaf Hopper Damage

Both the adult and nymph stages cause damage to dry beans. Leafhoppers feed by sucking water and nutrients from the leaves.



The first signs of leafhopper feeding are pale leaf veins and curled leaves. "Hopperburn" can result from continued feeding. This is a condition resulting in triangular yellowing or browning of the leaf tip.

PLANT BUGS



Tarnished Plant Bug

The tarnished plant bug is found throughout North America but is primarily a pest in temperate areas. It has two to five generations per year, depending on location. It is a true bug with piercing-sucking mouthparts. Adults are 6-6.5 mm long, oval and somewhat flattened.



They are greenish-brown in color with reddish brown markings on the wings. A distinguishing characteristic is a small but distinct yellow-tipped triangle in the center of the back. They overwinter as adults under leaf litter, stones, and tree bark and in other protected places.



Tarnished plant bug damage

BEAN BEETLES



Mexican Bean Beetle

Adults are 1/4 to 1/3 inch long, oval, and yellow to copper in color. They have eight black spots in three rows across each wing cover. Mexican bean beetles overwinter as adult beetles in grass and litter in fence and tree rows. They begin feeding as soon as they emerge. After feeding for 1 to 2 weeks, the adults lay their eggs on the underside of bean leaves. The yellow-orange egg masses hatch into larvae that are bright yellow and have six rows of branching spines. Larvae then mature into adults in 25 days. Mexican bean beetles feed on all types of beans. Both larvae and adults feed on the underside of leaves, removing the leaf tissue but leaving the epidermis. Severely injured leaves may have a lace-like appearance, also known as "window-paning" of the afflicted leaf.

MAGGOTS



Seedcorn Maggot

Adult seedcorn maggots are grayish brown and resemble small houseflies. Adults emerge in early April and begin host finding and egg laying. The damaging stage is the maggot or larva, which is a

pale, yellow-white, legless, and a maximum length of 1/4 inch long. Usually the first of three larvae generations damages to crop. These larva feed for 2-4 weeks before pupating. The maggots attack the young plants by boring into the seeds or developing cotyledons. They may also feed on developing roots , resulting in seeds that do not germinate, damaged primary leaves, stunted plants, or an affliction called "snakehead" beans. Wet, cool weather, as well as high levels of organic matter (such as fresh green manure) increase the chance for seedcorn maggot injury. The severity of the damage increases with slower germination and earlier infestation. Turning over fresh green manure before planting will increase the likelihood of infestation as well.