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# Mexican Bean Beetle

## *Epilachna varivestis*

<i>Order:</i>	Coleoptera (beetles)
<i>Family:</i>	Coccinellidae (ladybird and some leaf-feeding beetles)
<i>Metamorphosis:</i>	Complete (egg-larva-pupa-adult)
<i>Mouthparts:</i>	Chewing in larvae and adults



Larva of the **MEXICAN BEAN BEETLE**, *Epilachna varivestis*, see color print, Fig. 20A, on publication B-1013.

Mexican bean beetles (leaf-feeding coccinellids) were first detected in the United States in the late 1800s. They have spread throughout the western region of the United States, damaging dry beans, okra, eggplant, alfalfa, and clover.

### Body Form

**Eggs:** Eggs of the Mexican bean beetle are oblong, oval, and yellow. They are approximately 1/24 inch in diameter and about four times as long. They are typically laid in clusters on the undersides of leaves. The tapered ends of the eggs adhere to the leaves.

**Larvae:** Larvae are pale yellow to orange in color. They are slow moving and have three pairs of legs that are not strongly developed. They possess six dorsal rows of branched longitudinal spines that are the predominant larval feature. Full-grown larvae are approximately 1/4 inch in length.

**Pupae:** Pupae are an orange-yellow to copper color. Generally, they are found on the undersides of leaves. Pupae are approximately 1/4 inch in length.

**Adults:** Adults are generally shaped like common ladybird beetles. They are about 1/4 inch in length. They are a copper-orange color with 16 black spots on the abdomen when viewed from above.

### Life History

Adults overwinter in plant debris and generally are not active until early spring. Throughout spring and summer, females lay clusters of 40 to 60 eggs on the undersides of leaves. Young larvae will begin to emerge in approximately 5 to 12 days. The larvae will mature and pupate in approximately 25 days. Adult beetles will emerge in approximately seven days. Two generations may occur each year in Wyoming.

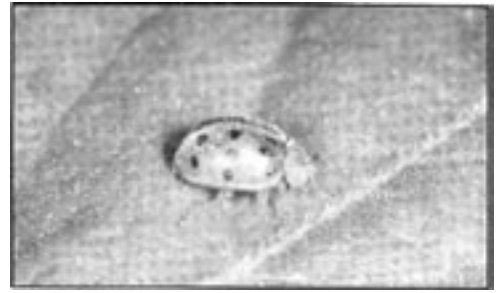
## Plant Injury

Mexican bean beetles feed on beans, various other legume crops, eggplant, and okra. Both the larvae and adults feed on the undersides of leaves. They chew on the leaf tissue between veins. The leaves of infested plants will be skeletonized, leaving only the leaf veins and some epidermal tissue. Plant growth is delayed and stunted. Yield losses of greater than 50 percent have been reported.

## Management

Combinations of cultural and chemical control methods have been adopted to manage and reduce Mexican bean beetle infestations.

Crop residue should be plowed under in order to reduce overwintering harborage for adults. Rotation into a non-host plant will also reduce damage although the good mobility of the adults can impact the effectiveness of this strategy. Predation by tachinid fly parasites, small parasitic wasps, and general predators occurs but is limited in value in maintaining the pest population below economic density levels. Insecticide use should be timed soon after the eggs hatch to prevent severe defoliation by late instar larvae. Economic thresholds are available that can assist in determining the value of insecticide application. A few larvae per plant may result in substantial yield loss. Younger plants will tolerate less damage than older vigorously growing plants.



Adult of the **MEXICAN BEAN BEETLE**, *Epilachna varivestis*, see color print, Fig. 20B, on publication B-1013.

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