

## Walnut twig beetle

### *Pityophthorus juglandis*

#### Description

This insect has currently not been found in the state of Michigan.

#### Identification

Adult beetles are very small (1.5 ? 2.0 mm in length) and is three times long as it is wide. They are reddish brown in color. They have 4-6 concentric ridges on the upper surface of the pronotum. The larva is white in color, C-shaped and found in the phloem of the tree.

#### Habitat

Native to Arizona, California and New Mexico. Black walnut (*Juglans nigra*) and black walnut hybrids are most susceptible. California walnut (*Juglans hindsii*, *Juglans californica*) and Persian walnut (*Juglans regia*) are slightly susceptible. Arizona walnut (*Juglans major*) is considered the native host while Butternut (*Juglans cinerea*) and Pecan (*Carya illinoensis*) appear to be resistant.





## **Reproduction**

Beetle can produce 2-3 generations per year. After flying, males initiate brood galleries on branches near leaf scars or lenticels. Males produce a pheromone and attract 2-3 females. Females deposit eggs into galleries directed against the grain and constructed in the phloem. Small white C-shaped larvae hatch and create feeding mines. They complete development in the mines and subsequently pupate. Adults emerge and either remain at the original tree or fly to other trees to mate and reproduce.

## **Impact**

The emerging adults carry the fungal spores of thousand cankers disease (*Geosmithia morbida*) to other trees. They attack branches that are less than 2 inches and the main trunk.

## **Similar**

## **Monitoring and Rapid Response**

There is currently no pesticides or control methods that work to prevent walnut twig beetles or the spread of thousand cankers disease. To prevent the spread, infected trees must be removed and the material destroyed by grinding or burning.

## **Credits**

The information provided in this factsheet was gathered from the Michigan Department of Agriculture & Rural Development (MDARD), Michigan Department of Natural Resources, University of California Agriculture and Natural Resources, U.S. Department of Agriculture Pest Alert. Individual species images

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