

# National Pest Alert



## Multicolored Asian Lady Beetle

### *Harmonia axyridis* (Pallas)

#### Introduction to the United States

The multicolored Asian lady beetle (MALB), a native Asian species, has been introduced in the U.S. both intentionally as a biological control agent and accidentally through shipping multiple times during the twentieth century. By the mid 1990's that MALB had colonized most of the U.S.. It is unknown if this was the result of an accidental introduction an intentional one, or a combination.

#### Description of Multicolored Asian Lady Beetle

MALB adults can be distinguished from other lady beetle species by a black M-shaped pattern on the white pronotum just behind their head. Adults are approximately 1/4 inch in length, spherical or domelike, and yellowish orange to red. Many adults have 19 black

spots on their forewings that vary in darkness. The spots may be missing or faint on some beetles.

#### Life Cycle

Unmated females overwinter in protected sites, including homes and other buildings. In spring, the females mate and lay clusters of bright yellow eggs on the underside of leaves. Larvae hatch in 3 to 5 days and are red-orange and black, shaped like an alligator, and covered with tiny, flexible spines. Larvae feed primarily on soft-bodied insects, such as aphids and scales, for 12 to 14 days and then pupate. The pupal stage lasts 5 to 6 days. Development is temperature sensitive, and in cool weather the life cycle may take a month or longer. Multiple generations occur each summer. Adults can live 2 to 3 years, depending on environmental conditions. Adults seek overwintering sites during the fall as temperatures cool. MALB is considered a tree-dwelling lady beetle, but it also is found in other habitats, including field crops.

#### Biological Control Agent

MALB is an effective predator of aphids and scales on trees, shrubs, and agricultural crops. It is estimated that adults are capable of consuming 90 to 270 aphids per day and larvae consume 600 to 1,200 aphids during this life stage.

#### Pest in Fruit Production

Adults feed on ripening peaches, apples, grapes, and other fruit. MALB is a late-season inhabitant of vineyards. The presence of these beetles in grapes



*Multicolored Asian lady beetle adults vary in appearance.*

can significantly impair wine quality. The beetles are more attracted to late-ripening varieties, including Cabernet Franc, Cabernet Sauvignon, Vidal, Gignoles, Riesling, Vidal, and Vignoles, although early ripening varieties prone to skin cracking also may be heavily infested. It is important to scout varieties several days before harvest to determine whether MALB is present. Insecticides may be used for MALB management in grapes when they are found to be present, be sure to follow all labeled instructions.

## Household Pest

Unlike native lady beetle species, MALB prefers protected overwintering sites in and around buildings. Large hidden aggregations may hibernate in dark, secluded areas inside homes, such as attics and basements. They also may invade living areas of the home and on warm sunny days may be found flying toward windows. When disturbed, MALB responds with reflex bleeding, exuding a yellow-orange liquid that has a foul odor that can permanently stain walls, carpeting, drapes, and furniture. Do not swat or crush the MALB to reduce the likelihood of this defensive behavior. Unlike other species of lady beetles, MALB bites humans and may cause welts that last 24 to 48 hours. In extreme cases of sensitivity, humans may have an allergic reaction to the fluid the beetles secrete, resulting in dermatitis and a stinging sensation.

## Overwintering Management Approaches

Preventing MALB from entering your home or building by sealing cracks and other points of entry is the best approach to managing this beetle in late summer and fall. If MALB has gained entrance



*Larva of the multicolored Asian lady beetle (above) and pupa (below).*

into your dwelling, a vacuum cleaner may be used to collect the beetles. Be sure to remove the vacuum cleaner bag and dispose of it outside once you have finished collecting the beetles to prevent them from escaping. When large, persistent infestations of MALB occur, labeled insecticides may be used outside of homes and buildings in order to reduce the number of MALB getting inside. Homeowners usually notice MALB in their homes when warm weather returns in the early spring. MALB do not breed in homes and the beetles active in the spring hibernated in the home all winter.



*Overwintering habits of the multicolored Asian lady beetle may result in aggregations inside homes and buildings.*

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This publication was produced and distributed in cooperation with USDA-CSREES Integrated Pest Management Centers, Maryland Department of Agriculture, USDA-APHIS, and the Land-Grant University System.

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*Photos:* Courtesy of Phil Nixon and David Riecks, University of Illinois College of ACES.

This work is supported by the Crop Protection and Pest Management Program (2014-70006-22486) from the USDA National Institute of Food and Agriculture.

August 2019