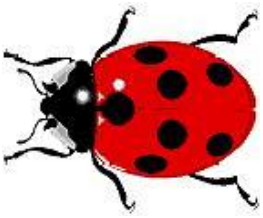
Extension Service
West Virginia University



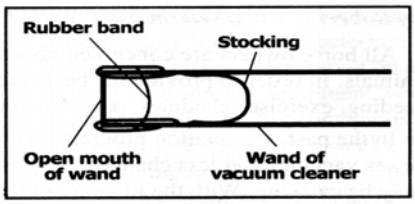
Pest Management

Sanjay Shah, Agricultural Engineer,
and Rakesh S. Chandran, Weed Specialist & IPM Coordinator
WVU Extension Service

February 2002

Nonchemical measures can reduce lady beetles indoors

The lady beetle (also called multicolored Asian lady beetle, lady bug, Japanese lady beetle, and Asian lady beetle) is a common pest during fall and winter months in many West Virginia households.



This insect, native to Asia, was introduced into the United States before the Great Depression. Since then, several intentional and accidental releases by entomologists or from imported nursery stock and other shipments have led to its emergence as a major pest problem in several parts of the country. The actual cause for its outbreak as a pest, which occurred in the 1990s, is not clearly understood.

Like most insects, the Asian lady beetle has four distinct life stages: egg, larva, pupa, and adult. Eggs are laid outside the house, and the larva and the adult lady bug feed on soft-bodied insect pests, mainly aphids, found in forested areas and agricultural/ornamental plantings during the spring and summer months. Seeking shelter from the cold during the winter months, it could move into dwellings sometime before the first killing frost in the fall.

The bug is attracted to houses with light-colored exteriors, such as, white or yellow. Lady beetles often congregate on the sunnier side of the house. Lady beetles can cause allergies and skin irritations in some people. Although they are not known to cause structural damages to houses like termites, they may stain walls and fabrics. They may hide in hard-to-reach places and emit odors.

Insecticides are useful before the insects enter the house. Synthetic pyrethroids are effective when applied around lower edges of roofs, attic ventilators, windows, doors, sidings, etc., where the insects could enter the house. Such treatments have to be applied before the beetles enter buildings to overwinter (September or October).

Chemical control may not always be a suitable option for managing this pest indoors. Household insecticides used to control this beetle have to come into contact with it to be effective. Therefore, insecticides have to be sprayed directly on the insects or the insects have to crawl over a significant sprayed area to receive a lethal dose.

While it may not be possible to eliminate the beetles, the following nonchemical measures could substantially reduce their numbers inside the house:

1. Asian lady beetles can enter the house through openings larger than 1/8 inch. To keep out the beetles, seal cracks around windows, doors, and other openings with weather stripping, silicone, or silicone-latex caulk. Larger gaps can be sealed with urethane foam or glass wool. Install tight-fitting door sweeps or thresholds at all exterior entry doors. Use 20-mesh insect screens over attic and exhaust vents. These measures should be taken by mid- to late fall. Sealing cracks and gaps around the house will also reduce energy costs. The materials are available at local hardware stores.
2. Swatting the beetles inside the house will result in unsightly stains on carpets or walls. While small numbers of beetles can be removed using sticky tape, vacuuming is more effective for large numbers. Either discard the beetles immediately or "bag" them for release outdoors during spring. To bag the beetles, insert a knee-high stocking into the extension wand of a vacuum cleaner and fasten the open end of the stocking on the mouth of the wand with a rubber band (see figure). Transfer the beetles from the stocking into a container with minute air holes and place a piece of damp cloth in the container since the beetles require moisture to survive. Store the container in an unheated area over the winter and release them in your garden during spring.
3. Beetles inside the house can also be collected with a trap developed by the Agricultural Research Service (ARS) of the U.S. Department of Agriculture (USDA). The USDA-ARS trap is used in a darkened room since it uses a blacklight to attract the beetles into a plastic bag. Beetles collected in the bag may be stored for release outdoors in spring (as described earlier) or killed using a mixture of dishwashing liquid and water kept in the plastic bag. The trap has to be moved from one room to another to treat the whole house.

Drawings and instructions for building the USDA-ARS trap are available on the Web *(www.ars.usda.gov/is/pr/2000/001030.trap.pdf)*. Some private companies sell traps via the Internet; they cost between $65 and $145. The WVU Extension Service is working with a Morgantown firm to develop a less expensive trap, which would allow homeowners to buy multiple units for simultaneous use throughout the house.