



## Interior Pests: Multicolored Asian Lady Beetles

by Laura C. Jesse, Extension Associate in Entomology, Iowa State University

The sunny and cool days of fall often produce an entomological wonder: hundreds or thousands of lady beetles congregating on the sunny sides of buildings. More than likely this insect is the multicolored Asian lady beetle, *Harmonia axyridis*, a relatively new species to Iowa. This lady beetle purposely was introduced in southern and eastern states between 1916 and 1980 to control aphid and scale pests in trees. Multicolored Asian lady beetles spread into Iowa in the mid-1990s.

Multicolored Asian lady beetles can be identified by a black M-shaped mark on the cream-colored shield behind their head (Fig. 1). As their name implies, color patterns range from yellow to orange, and the number of spots varies from none to many (Fig. 2). The larvae and adult lady beetles feed on many garden and crop pests, like aphids, and are considered beneficial insects.

Multicolored Asian lady beetles are attracted in large numbers to bright sunny surfaces in the fall. They seem to prefer the southern or western sides of light-colored buildings. These insects become a nuisance when they move into the building via small cracks or holes to hibernate. Sometimes in the spring people discover they have been sharing their school all winter with lady beetles when the beetles become active again and accidentally crawl into areas of the building used for activities. Unfortunately, little can

be done to manage multicolored Asian lady beetles in the spring because they are emerging from inaccessible places in the building.

Disturbed lady beetles defend themselves by releasing a foul smelling yellow liquid from around their legs; this is called reflex bleeding. This liquid stains walls or carpets, so it is best to vacuum beetles up before they have time to reflex bleed. Black lights also can be used indoors at night to attract and trap beetles.

Multicolored Asian lady beetles occasionally will bite people, but the bites are harmless and will just pinch a little.



Figure 1. Adult and larval multicolored Asian lady beetle.

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To prevent problems in school buildings, identify potential entry sites and mechanically prevent the lady beetles from entering. Make sure the following items have been checked:

- Install tight-fitting sweeps or thresholds at the bottom of exterior doors and install weather stripping around other parts of the doorframe.
- Seal utility openings where pipes, phone, and other wires enter the foundation and siding.
- Caulk around windows, doors, siding and fascia boards.
- Make sure there are no holes in window screens.
- Cover exhaust vents, chimneys and other holes that must remain open with a fine mesh screen.

In certain instances, localized spot treatments with insecticides can be done where beetles congregate. Remember that residual insecticides will not remain effective for a long period in sunny areas, and should be tested on surfaces to make sure it will not damage paint or other materials it is applied to.



Figure 2. Various colors and spot patterns of multicolored Asian lady beetles. © Marlin Rice.

Use of insecticides needs to be approved by your school's Integrated Pest Management coordinator before an application.

A long-term solution may be to make the building less attractive to the lady beetles. This could be done by planting trees to shade the southern and western sides of the building in the fall.

## Horticultural Tips: Fall Flowers and Their Care

by Cynthia Haynes, Extension Horticulturist, Iowa State University

There are several perennials that bloom in fall that are worth considering in school landscapes. These plants add beauty to their surroundings and are relatively easy to maintain.

- Black-eyed Susan (*Rudbeckia*) has golden yellow flowers with dark brown centers on 2 to 3 feet tall plants. Flowering begins in late summer and often continues through September.
- Russian Sage (*Perovskia*) has lavender-blue flowers and silver foliage on 3 to 4 foot stems. The fine textured leaves smell like culinary sage, hence its common name (Fig. 3).
- Autumn Joy Sedum (*Sedum*) is an indestructible perennial with succulent leaves on 2-foot plants. The green flower buds resemble broccoli in mid summer before opening a dark mauve color in fall (Fig. 4).

- Ornamental grasses like Maiden grass (*Miscanthus*), Fountain grass (*Pennisetum*), and Feather reed grass (*Calamagrostis*) offer attractive leaves and seed heads in late summer and fall. They range in height from 5 to 7 feet for Maiden grass and 2 to 3 feet for Fountain grass.

### Maintenance

All of the above mentioned perennials prefer sunny sites with well-drained soils. Adding 2 inches of organic mulch at planting will reduce maintenance chores such as weeding and watering. Once established, these perennials prefer slightly dry soils for best growth, so typically little watering is needed.

These fall bloomers also are sturdy enough to remain standing after a killing frost and during much of the winter. The grasses are particularly attractive in the



Figure 3. Russian sage.



Figure 4. Sedum.

winter months and clean-up or removal of the dead leaves and stems can be postponed until early spring. Allowing the flowers and leaves to remain during the winter months is not harmful to plants and may help

in overwintering. If fall clean-up is necessary, add a couple of inches of mulch over the plant crown and roots to insulate them if snow cover is limited.

## Exterior Pests: Fungal Cankers on Trees

by Mark Gleason, Extension Plant Pathologist, Iowa State University

**C**ankers are localized dead areas in the bark of stems, branches, or twigs of many types of trees and shrubs (Fig. 5). Most tree cankers are caused by fungi, which grow between the bark and the sapwood.

Cankers are among the most difficult-to-manage tree disorders. Cankers also create openings for other fungi, bacteria, and insects, which can speed up a tree's decline and death. Fungicides are not an effective option for controlling canker diseases.



Figure 5. Sunken and discolored bark in a fungal canker.

**What to look for**  
Symptoms of canker diseases include dying or dead branches, sometimes with wilted leaves still attached, scattered among healthy-looking foliage (Figs. 6 and 7). On shoots of thin-barked hardwoods, cankered areas appear dark or discolored compared to healthy bark, and the canker may

appear sunken below the level of nearby healthy bark.



Figure 6. Branch dieback on Russian olive caused by canker disease.

Although surface discoloration may not be apparent on the bark of mature, thick-barked hardwoods, diseased areas are frequently sunken, the branch or trunk may appear flattened, and the bark at the margins of a canker can be swollen and cracked where a callus has developed. A common symptom of a canker on conifers is leaking resin, which crystallizes to a whitish, sticky mass on the bark (Fig. 8).

Most canker fungi do not cause cankers on healthy, vigorous trees, but only on trees that are already severely weakened or stressed. Trees weakened by environmental stresses are the most prone to attack by canker fungi. Common environmental stresses include drought, flooding, freezing, extreme temperature fluctuations, nutrient deficiencies, defoliation, chemical injury, transplant shock, and mechanical injury such as lawn mower damage.

The entry point of a canker fungus canker is usually a wound or a dead stub. Because cankers typically expand most rapidly along the main axis of the limb, they tend to be oval or elongated in shape.

### Canker management strategies

**Pruning** out cankers can remove most of the canker fungi from the tree, reducing the risk of new

infections. Because spread of canker fungi is favored by rainfall, pruning during wet weather should be avoided.

**Planting canker-resistant species and cultivars** can avoid canker diseases. Native species, well adapted to Iowa conditions, are often less vulnerable than introduced species. Even within the same tree species, certain varieties are more resistant than others.



Figure 7. *Cytospora* canker of blue spruce, showing dieback of lower branches.

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Figure 4. White resin on branches of blue spruce, resulting from attack by a canker fungus.

For example, ‘Skyline’ honeylocust (*Gleditsia triacanthos* var. *inermis* ‘Skycole’) is more resistant than ‘Sunburst’ honeylocust (*G. triacanthos* var. *inermis* ‘Suncole’). Contact local experts in advance about the best cultivars to plant in order to avoid fungal cankers.

**Stress prevention or reduction** is the most valuable canker management strategy, because most canker diseases attack only trees that are under severe stress. Planting sites should provide maximal conditions for vigorous, healthy growth. For example, a tree planted at a site where most or all of the topsoil has been removed may be subject to stress due to a poorly aerated, compacted rooting environment, and therefore more vulnerable to canker diseases. If the planting environment is poor, consider berming the site with topsoil to provide a better rooting environment.

Drought-prone trees can be kept healthy by practices such as mulching, watering, and fertilizing. Care should be exercised when watering and fertilizing because certain canker diseases are favored by practices that promote succulent growth. Ask local extension specialists or arborists for advice on how to implement these techniques.

Stress avoidance is the most effective canker management strategy. Wound paints have not resulted in much benefit. Since prevention is crucial, stress avoidance is the only effective canker-prevention strategy.

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