

### at a glance

- Boxelder bugs are a common nuisance pest in Idaho homes and yards.
- Adult boxelder bugs are slate gray with distinctive red lines.
- Boxelder bugs are not particularly harmful, but their large numbers can be annoying.
- Female boxelder trees are the primary host for boxelder bugs.
- Boxelder bugs are generally a problem in late summer through mid-fall.
- Prevent boxelder bugs from entering your home by caulking and weather-stripping around windows and doors.

**AUTHORS**—Danielle Gunn, Agricultural Extension Educator, University of Idaho Extension, Fort Hall Reservation; Edward Jon Bechinski, Extension Entomology Specialist, Department of Plant, Soil, and Entomological Sciences, Moscow.

University of Idaho  
Extension

# Managing Boxelder Bugs around Your Home

## Introduction

Boxelder bugs are a common nuisance pest in Idaho homes and yards. Although they are not particularly harmful, their populations can build to intolerable numbers.

## Identification

Boxelder bugs develop through three life stages: egg, nymph (figure 1), and adult (figure 2). Adult boxelder bugs are the most commonly encountered life stage.

Adults are flattened, elongate, and approximately 1/2 inch long not including the antennae. Their overall upper body color is slate gray to black. Reddish-orange lines appear behind the head and along the sides of the body. Under the wings the body is red with two rows of black spots. Legs and antennae are black.

## Hosts

Boxelder trees are the primary host for egg laying, feeding, and development. Boxelder bugs suck sap from the leaves and stems but prefer to feed on the tree seeds. Boxelder bugs seldom occur on male boxelder trees because only the females produce seeds. Boxelder bugs also reproduce on seed-producing maples and occasionally on ash trees. They may also feed on weedy grasses, ornamental flowers, and small fruits.

## Life cycle

Adult boxelder bugs survive the winter in protected places such as in bark crevices or under rocks and debris around home landscapes and inside buildings. Adults sometimes become active outdoors during warm, sunny days in late winter, but activity really does not begin until temperatures consistently reach 70°F and host trees leaf out in April.

In May, overwintered adults fly to host trees, where each female lays several hundred eggs. Eggs hatch in 10 to 14 days. Nymphs initially live on the ground or on low-growing vegetation, where they eat the previous year's fallen seeds. Boxelder bugs normally do not live on trees until the seeds are set in midsummer.

When leaves begin to drop, nymphs and adults move from trees and gather on sunny surfaces such as bare soil, fences, tree trunks, rocks, sidewalks, and doors. Movement from trees increases in October immediately following the first frost.

Adult boxelder bugs searching for overwintering sites may move indoors through cracks and crevices in foundations and along door and window casings. They overwinter in an inactive, nonfeeding state.



**Figure 1.** Immature boxelder bug nymphs are smaller than adults and lack wings. Used by permission, Entomological Society of America.

### Pest status

Nuisance activity occurs from late-summer through mid-fall when bugs leave host trees for overwintering sites and in mid-spring when overwintered adults become active and lay eggs.

Boxelder bugs that wander into residences during the fall do not feed or reproduce inside. Their liquid feces can stain fabrics; otherwise, the bugs do not harm structures.

Threats to human health from boxelder bugs indoors are insignificant. Boxelder bugs have no venom and cannot sting. They are occasionally known to bite people when pressed against bare skin. Such accidental encounters cause no lasting effects.

### Management options

**Prevent bugs from entering your home** by caulking around windows and weather-stripping around doors. Repair torn screens and cover vents under eaves and in attics with fine-mesh screening that excludes bugs.

**Vacuum bugs.** Shop vacuums are effective for removing bugs indoors and outdoors. Dispose of the vacuum contents inside a sealed bag so surviving bugs do not escape.

**Consider eliminating female (seed-bearing) boxelder trees.** This will help reduce but not necessarily eliminate nuisance problems. Adult boxelder bugs are highly mobile so infestations can come from trees hundreds of yards away.

**Rake and destroy seeds early in spring.** If it is not feasible to remove host trees, rake and destroy boxelder and maple seeds lying on the ground. This will deprive nymphs of their primary food supply before new seeds set.

**Treat sunny southern and western exposures of buildings** with an appropriate insecticide. This can create an effective but limited



**Figure 2.** Adult boxelder bugs are marked with red lines on a slate-gray background. Used by permission, Oregon State University, Ken Gray Slide Collection.

chemical barrier that kills boxelder bugs before they enter buildings. You can hire a professional or do it yourself using over-the-counter insecticides labeled for outside barrier treatment. Premixed, ready-to-use liquid sprays in trigger-pump containers are convenient and reduce potential health hazards.

Unless otherwise directed by the label, spray a 3-foot-wide continuous band of insecticide on the outside soil around the building foundation and spray upward on the exterior foundation another 2 or 3 feet. Spray around doors, windows, vents, and other openings through exterior walls where bugs can enter buildings.

“Least-toxic” alternatives include insecticidal soap sprays and diatomaceous earth dusts. Specific conventional insecticides and alternative products are listed online at <http://www.cals.uidaho.edu/edcomm/pdf/CIS/CIS1155.pdf>.

**Do not use insecticides indoors,** except for extreme boxelder bug infestations. The pest is too mobile for effective, judicious insecticide use inside. Bug-bomb aerosols can kill exposed insects, but bugs invading after the insecticide disperses will survive.

ALWAYS read and follow the instructions printed on the pesticide label. The pesticide recommendations in this UI publication do not substitute for instructions on the label. Pesticide laws and labels change frequently and may have changed since this publication was written. Some pesticides may have been withdrawn or had certain uses prohibited. Use pesticides with care. Do not use a pesticide unless the specific plant, animal, or other application site is specifically listed on the label. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

Groundwater—To protect groundwater, when there is a choice of pesticides, the applicator should use the product least likely to leach.

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