

at a glance

- This non-native insect invades homes in July and August from surrounding landscapes where elm trees occur.
- The elm seed bug poses no threat to plants or people other than as crawling nuisances.
- Caulk and weather-strip around windows and doors to prevent bugs from entering your home.
- Apply insecticides as outdoor barrier sprays around doors and windows and along the foundation if pest numbers are intolerable.

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Managing Elm Seed Bugs around Your Home

Introduction

The elm seed bug (*Arocatus melanocephalus*) is a Mediterranean species that first established in the United States during 2009 in Ada and Canyon counties. No one knows exactly how the bug arrived in Idaho. It occurs statewide and likely will establish throughout the drier interior regions of the Pacific Northwest and Intermountain West wherever elm trees grow.

Identification

Elm seed bugs develop through three life stages—eggs, wingless nymphs, and winged adults. Eggs seldom are noticed by homeowners. Newly hatched nymphs are 1/20-inch long with bright-red, soft bodies and a dark-brown head. Nymphs develop through five distinct stages, each bigger than the last. Body color changes into a mottled pink-tan as nymphs mature (figure 1).

Adult bugs are approximately 1/3-inch long. Overall body color is dark chocolate brown with reddish highlights. An identifying feature is a dark, backward-pointing triangle on a rusty-red rectangular mark (figure 2). Narrow white bands occur along the edges of the abdomen. Adult elm seed



Figure 1. Late-stage elm seed bug nymphs have pinkish bodies with two wing pads on the shoulders. Photo by Bradley Stokes.



Figure 2. Adult elm seed bugs are 1/3-inch long with dark-brown bodies. Distinguishing features are a rusty-red rectangular mark on the back (solid lines) containing a dark, backward-facing triangle (dashed lines) and a series of white bands along the abdomen (arrows). Photo by Bradley Stokes.

bugs fold their wings over their back in an x-pattern; that feature differentiates them from beetles, which fold their wings in a straight line over the back.

Seasonal Biology

Based on European literature and Idaho collection records, we believe that elm seed bugs have a single generation yearly. They overwinter as adults inside buildings and outdoors under tree bark, stacked firewood, leaf litter, and other protected places. When temperatures warm in the spring, adults mate and lay eggs on developing elm seeds. By early July, mixed populations of young nymphs, late-stage nymphs, and summer adults occur in residential landscapes, where their activity continues through August. Nymphs and adults feed with piercing-sucking mouthparts on elm seeds (including on the Siberian elm, *Ulmus pumila*). They also suck sap from the veins of elm leaves.

Pest Status

The threat to landscape elms is inconsequential. Elm seed bugs become pests only by their sheer numbers when nymphs and adults congregate outdoors on trees and buildings and then crawl inside homes. They invade buildings especially during mid-summer periods of hot, dry weather. Elm seed bugs do not bite, sting, or stain, nor do they feed on stored foods, houseplants, furniture, clothing, or building structures. Crushed bugs emit an odor that some people find unpleasant but which we characterize as an over-ripe cantaloupe mixed with turpentine.

Management Options

Bug proof your home, particularly if elm trees are nearby, including elm trees on neighboring property. Weather-strip around loose-fitting doors, caulk around windows, and repair torn screens.

Use a shop vacuum to physically remove bugs; put a few inches of soapy water in the canister to drown captured bugs.

Deploy commercial sticky traps around window sills.

Rake and destroy elm seeds that fall from trees during late spring and early summer to reduce nymphal food sources.

Inspect firewood for overwintering adults before bringing it inside.

Apply broad-spectrum insecticides as outdoor barrier treatments during July and August around doors and windows and along the foundation of homes and other buildings. Hire a professional or do it yourself using over-the-counter insecticides.

Liquid formulations containing any one of these active ingredients should kill immediately and last at least 1 week: beta-cyfluthrin, bifenthrin, carbaryl, cyfluthrin, cyhalothrin-gamma, deltamethrin, lambda-cyhalothrin, malathion, permethrin, and zeta-cypermethrin. Lambda-cyhalothrin products may provide control lasting several weeks. All these active ingredients are sold under many different trade names. Read the label before purchasing any product for warnings about potential staining of treated surfaces.

Unless otherwise directed by the label, spray a 3-foot wide continuous band on the soil outside around the foundation and spray upwards on the exterior foundation another 2 or 3 feet. Spray around doors, windows, vents, utility line entrances, and any other opening through exterior walls where bugs can enter buildings.

Diatomaceous earth is a least-toxic alternative, but it can be applied only as a light, dry dust outdoors to patios, door thresholds, and window wells. Do not apply diatomaceous earth inside homes; it can become a severe nasal irritant.

Do not spray entire home landscapes for elm seed bug control. Broad-scale application potentially exposes people and pets to pesticide residues and can be highly disruptive to backyard wildlife, pollinators, butterflies, and other desired species.

Except for extreme infestations, we recommend against insecticide use inside living spaces, especially aerosol bug bombs. This pest is too mobile and too secretive for effective, judicious indoor insecticide use. Instead, apply exterior sprays and prevent pest entry in the first place.

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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