

at a glance

- Yellowjackets, bald-faced hornets, and paper wasps are social insects.
- Most are beneficial pollinators, predators, and/or scavengers.
- They have barbless stingers, and so they can sting multiple times.
- Yellowjackets most often build nests underground.
- Hornets and paper wasps build nests above ground, on plants or buildings.
- Species identification requires expert examination but is not necessary for taking control measures.

AUTHORS—Stuart C. Parkinson, Extension Educator, University of Idaho Extension, Franklin County; Danielle Gunn, Extension Educator, University of Idaho Extension, Fort Hall; Edward Bechinski, Extension Entomologist, University of Idaho, Moscow

Wasp and Hornet Control

Introduction

Hornets, yellowjackets, and paper wasps differ from bees in that their bodies are slender, with a narrow waist, and they are mostly hairless and shiny. These social insects live in colonies consisting of a single reproductive queen and infertile female offspring (workers). All three stinging insects build gray, papery nests from fibers they chew from weathered wood.

Most wasps and hornets prey on other insects and are considered beneficial. However, once they congregate around human gathering places, they can become a nuisance. All of these insects are able to inflict multiple, painful stings with a barbless stinger.

Yellowjackets

Four of the eleven yellowjacket species in Idaho pose stinging hazards justifying control measures. These species are the western yellowjacket, common yellowjacket, German yellowjacket, and aerial yellowjacket (figure 1). They readily nest around homes and build their nests underground in abandoned animal burrows or other hollowed-out spaces. Yellowjackets are attracted to honeydew produced by aphid colonies in trees.



Figure 1. Yellowjackets have wider abdomens than paper wasps. Photo used by permission from Michigan State University.



Figure 2. Bald-faced hornets are large, black, stout-bodied wasps with a whitish-yellow face and some white marks near the end of the body. Photo by Johnny N. Bell, Bugwood.org.

Bald-faced Hornets

These are large, stout-bodied black wasps with a whitish-yellow face and some white marks near the end of the body (figure 2). They build their nests above ground on plants or buildings. The nests often have leaves or twigs in the outer wall. Hornets are not particularly aggressive and pose a much lower stinging hazard than yellowjackets. They feed almost entirely on insects (including yellowjackets) and are not generally considered a nuisance at outdoor events.

Paper Wasps

The most common wasp in Idaho is a non-native species called the European paper wasp. This insect has a longer, slimmer body than a yellowjacket. It has a long-legged appearance and dangles its legs while in flight (figure 3). This wasp builds a distinctive, umbrella-shaped, open nest that hangs upside down from protected locations. It is fairly docile and normally only stings when trapped.

Management Strategies

Nonchemical control

Recognize that applying repellents or flooding of subterranean nests are ineffective control measures. In most situations, insecticides are required for control. Other practical strategies to help reduce stinging risk include the following:

Make yourself and your surroundings less attractive to the insects.

- Do not wear perfume when working outside
- Wear light-colored clothing
- Keep food covered during picnics
- Keep lids on trashcans
- Remove rotting fruit from under trees
- Control populations of aphids

Destroy early season nests in problem areas during April and May. Nests can be dislodged with a garden hose. Never knock down, cut, and bag large nests as the stinging hazard is too high.

Know how to behave in an encounter. If you encounter one or more of these stinging insects, walk backward and move slowly away from the insect. If you hear loud buzzing, run to a building or vehicle until wasps stop their pursuit.

Use traps. Yellowjackets are fairly easy to trap with commercial or homemade traps. Paper wasps will not be attracted to these traps. Avoid placing traps close to areas where humans congregate.



Figure 3. Longer and slimmer than a yellowjacket, paper wasps also dangle their legs while in flight. Photo used by permission from Michigan State University.

Chemical control

The most effective chemical control products are liquids or aerosols specifically designed to shoot a narrow stream of insecticide that is applied from a distance. Most wasp or hornet control products contain pyrethroids; look for products with the active ingredients cyfluthrin, beta-cyfluthrin, bifenthrin, lambda-cyhalothrin, deltamethrin, permethrin, or tralomethrin. Be sure to follow label instructions during application. For a more detailed list of insecticides and control methods, refer to *Homeowner Guide to Yellowjackets, Bald-Faced Hornets, and Paper Wasps* online at <http://www.cals.uidaho.edu/edComm/pdf/BUL/BUL0852.pdf>.

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.

Trade Names—To simplify information, trade names have been used. No endorsement of named products is intended nor is criticism implied of similar products not mentioned.

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

Issued in furtherance of cooperative extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Barbara Petty, Interim Director of University of Idaho Extension, University of Idaho, Moscow, Idaho 83844. The University of Idaho provides equal opportunity in education and employment on the basis of race, color, national origin, religion, sex, sexual orientation, age, disability, or status as a disabled veteran or Vietnam-era veteran, as required by state and federal laws.