



C164

STINGING WASPS: PAPER WASPS, YELLOWJACKETS AND HORNETS

Paper wasps, yellowjackets, and hornets are all members of the *Vespidae* family. They are social insects that live in nesting colonies ranging from a few inches across to several feet in diameter.

Paper wasps are about 3/4-inch long with slender bodies and long legs. They are usually red and yellow or yellow with small black areas. They build nests of a papery material that consist of wood or foliage that is chewed up and formed by workers. These nests are naked combs with no covering, which makes them noticeable on house eaves. Nests are usually situated in vegetation or trees, but can be found attached to rocks, power poles, houses, sheds, or other structures.



Yellowjacket

Yellowjackets are approximately ½-inch in length with bodies that appear short and blocky, usually with patterned yellow and black coloration. They build nests of the same papery material that paper wasps use. These nests are enveloped in multiple layers of material with a single entrance at the bottom of the structure. Yellowjacket nests are usually subterranean, but some build in hollow logs, trees, attics, between house walls, or on house eaves. Aerial nesting yellowjackets are almost exclusively predators, while ground-dwellers can be scavengers or predators.



Hornets are similar to paper wasps in size. The bald-faced hornets found in Spokane are mostly black with white patterns on the face and body. Their large nests are covered in a thin, easily torn, papery envelope and are built in trees, lower shrubs, or attached to buildings.

Hornet

Colonies in eastern Washington live for one season. Only the queens overwinter in sheltered areas away from nests and start new colonies the following spring. None of these stinging wasps reuse nests. However, the old nests may serve as indicators to the queens of a good nesting area.

Paper wasps, yellowjackets, and hornets are highly beneficial because they prey on pest insects (including houseflies and blowflies) and spiders. Do not implement control measures unless absolutely necessary. These insects capture prey, pre-chew it, and feed it to their larvae. Adults also eat pollen and nectar. In addition to insects and spiders, yellowjackets will feed on meat, fruits, and other sweets, which is why they are attracted to picnic areas. Bald-faced hornets will feed on yellowjackets.

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Yellowjackets tend to be more aggressive than hornets or paper wasps, but all are very protective of their nests and young. Showing respect for stinging wasp colonies reduces human interactions with them. Sometimes, vibrations of foot traffic can agitate a growing colony. The larger colonies found in late summer tend to be more aggressive.

Northern giant hornet ("murder hornet")

This hornet is not expected to be seen in the Inland Northwest due to our hot summers. For more information, please refer to https://agr.wa.gov/hornets

NON-CHEMICAL CONTROLS

Unless a colony is located near human activity or wasp populations are high, paper wasps, yellowjackets, and hornets should not be regarded as pests and the presence of these insects should be tolerated. Since nests are not reused, they don't necessarily need to be removed. However, if a nest is located in house attic, walls, or eaves, it is advised to remove it so that it won't serve as a home to carpet beetles or other household pests.

Exclusion

- Remove old, abandoned nests in heavy human-use areas.
- Patch, repair, or fill holes in trees, siding, or the ground (insect or animal burrows)
- Remove, repair, and/or repaint old, unpainted wooden porches, buildings, fences, etc. These structures are preferred by queens because they chew crumbly old wood into paste for nests.
- Remove stumps or rotting logs near house.
- Avoid dense shrubbery around the house.
- Maintain effective, tight-fitting screens on vents, windows, and doors.
- Minimize attractive food sources (fallen fruit, discarded food, pet food, etc.)
- Make sure picnic areas are clean of food debris.
- Securely cover garbage containers.
- Keep insect pests (prey) to a minimum.

CHEMICAL CONTROLS

Aerial and Underground nests

These nests can be treated with aerosol sprays. Apply sprays in the coolest part of the early morning or late evening when most wasps are in the nest and less active. Always read and follow label directions. For chemical management of nests, refer to WSU Pestsense website: Yellowjackets and Wasps

Inhabited areas (walls, attics, etc.)

Consider hiring a commercial pest control company for safety reasons. Homeowners may be badly stung or otherwise injured when treating wasp nests in close quarters. Remove all nest residue in living spaces to avoid carpet beetle and other household pest infestation.

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Traps for Yellowjackets

Locate traps away from human activity areas to reduce wasp encounters.

1. Hang fish or meat just over a bucket of water with detergent or other wetting agent added. The yellowjackets will drop into water when they take large bites of meat, and the wetting agent will prevent their escape. This method is very effective.



2. Commercial yellowjacket traps are baited daily with fresh meat or synthetic attractant. These work quite well if enough are used (four per average-sized yard).

Safety Precautions

- Back away from nests and move slowly. Rapid movements and dark silhouettes agitate wasps.
- If stung or buzzing is heard close by, move away from trees/shrubs (nests may be there) and cover eyes, nose, and mouth with hand or shirt to protect from stings. Shelter in building or car until insects stop pursuing.
- When spraying or removing nests, wear long sleeves and long pants and cover your head, face, neck, and hands. Wear glasses or goggles to protect eyes.
- If you are allergic, do not risk treating wasps yourself. Hire someone to do it.
- Keep children and others from disturbing nests (throwing rocks, poking sticks, etc.). Agitated wasps are more likely to sting in future encounters.
- You are a less attractive target for stings if you do not wear scented products, hair sprays, or brightly colored clothing, especially yellow, orange, or red.
- Refrain from swatting or smashing wasps. These motions create alarm pheromones in wasps, which can set off mass attacks.
- Use containers with lids and straws for outside drinks in late summer/early fall, or if using open cups for drinks, always look before sipping.
- Keep protein sources (meat, cheese, etc.) in sealed containers when eating outside.
- Feed pets inside to prevent attracting yellowjackets.

For more extensive information see EB o643 *Yellowjackets and Paper Wasps*. https://s3.wp.wsu.edu/uploads/sites/1384/2016/07/Yellowjackets-and-Paper-Wasps.pdf

For specific pesticide recommendations, please consult WSU's Pestsense website: http://pestsense.cahnrs.wsu.edu/Search/MainMenuWithFactSheet.aspx?CategoryId=3&ProblemId=788

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