School IPM Fact Sheet

Yellowjackets, Hornets, and Bees

Stinging insects present a special hazard in schools due to the danger of allergic reactions in some people. Wasp stings are painful for most of us, but every year in the U.S. as many as 40 allergic individuals die from yellow jacket stings. Inspection, sanitation, exclusion, and the removal of small nests in early summer are the best methods for reducing wasp populations. Wasp colonies are killed by freezing temperatures in fall and winter and their nests are not reused the following season.

Inspection

From May to October, monitor for wasp nests every 2 weeks. Paper wasp nests are fairly easy to spot on the eaves of buildings or playground equipment. Yellowjacket nests are more difficult to locate especially if they are enclosed in wall voids or underground. These nests may remain hidden until they are quite large.

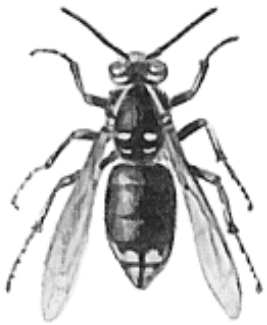
Yellowjackets will nest in the ground (often under shrubs, logs, or rock piles); in hollow trees; among branches of trees or shrubs; under eaves; in hollow fencing, playground structures, and meter boxes; and inside walls. Look for wasps entering and exiting from one of these locations.

Nests located where they can be avoided do not need to be treated. Rope off areas where nests are located, if possible, and instruct children not to disturb nests.

Outdoor sanitation

As summer wanes and natural food sources become scarce, dumpsters become very attractive to wasps. Practice good sanitation to keep foraging wasps away from food wastes.

- Make sure all trash containers have tight-fitting lids or spring loaded doors.
- Place all waste into sealed plastic bags before disposal.
- Empty trash frequently, especially during warm months.
- Wash dumpsters on a regular basis to eliminate spilled food and liquids.
- Limit food consumption outdoors. Clean up and dispose of trash promptly after outdoor events where food was served.
- Goldenrod is a major source of sugar for yellow jackets. If a nearby field of blooming goldenrod is mowed, expect an increase in the number foraging yellow jackets around school buildings and playgrounds.



Baldfaced Wasp

Yellowjacket

Paper Wasp

Exclusion

To prevent wasps from building nests, use quality sealant, steel wool, and insect screening to close openings in outside walls, playground structures, fences, pipes, hollow fence posts, meter boxes, wall voids, etc. Do not seal the entrance to an active nest until the colony is destroyed.

Removing nests

Nests should be removed if they are located in areas where disturbance is inevitable or where there is a persistent problem on athletic fields or around outdoor food-service areas. By managing wasps early in summer, schools can avoid larger, late-season nests that pose a real threat.

Knock down small paper wasp nests using a directed spray of water or a pole. Yellowjacket nests are often difficult to locate and remove. Nests found in shrubs should be bagged, then cut out. For ground nests, vacuuming the nest opening can work well, however digging a nest out of the ground is labor intensive and dangerous.

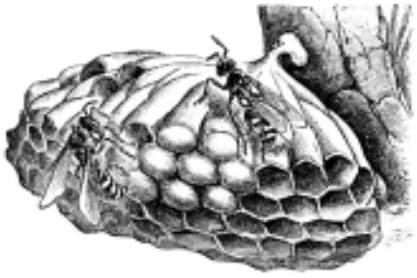
To avoid the risk of stings to students and staff, hire a professional to remove nests. Experienced professionals can vacuum nests located indoors or in sensitive areas where pesticides should not be used.

Using pesticides

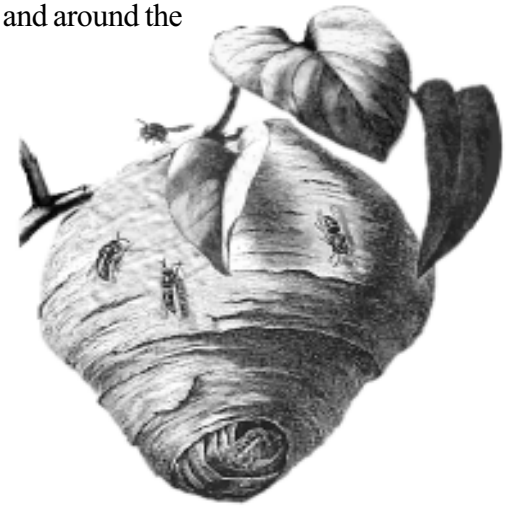
Large paper wasp nests and those in hard to reach locations require a low-toxic spray containing pyrethrin, mint oil, or eugenol. The pesticide treatment kills wasps at the nest as well as the foraging workers who will rebuild the nest on their return. Maine law permits a non-licensed school employee to apply ready-to-use general use pesticides by hand or with non-powered equipment to control stinging or biting insects for protection of school occupants. However, to avoid the risk of stings, you may wish to hire a professional to treat the nests. Treating the entire building exterior is not necessary or recommended. Use the following procedures to treat the nest with a registered insecticide:

Treating above-ground nests

- Wear protective clothing (coveralls with long sleeves tucked into gloves, pants, boots, a veil, and hat) to avoid stings.
- Treat at night when the entire colony is in the nest. Use an aerosol product—formulations designed to apply a 10-15' stream are effective.
- Approach the nest close enough to spray directly into and around the edges of the entrance hole.



Umbrella or paper wasp nest



Yellowjacket nest

Treating underground nests

- Wear protective clothing and veil to avoid stings.
- During the day, mark main entrance then check for and mark any additional entrances located within 40-50' of the main entrance.
- After dark, use a ½-second blast of aerosol spray to kill guard wasps at secondary entrance, stuff hole with paper, cover with soil. Apply some of the spray to the main entrance to kill guards, then use a bulb applicator to puff a dust formulation into the nest. Seal the entrance with moist soil.
- *Do not use gasoline or fuel oil for treatment.* It is illegal, ineffective, and pollutes the soil and ground water.

Treating nests in wall voids

- Wasp colonies can be eliminated using the same procedure for ground nests.
- After killing and removing the colony, seal the entry way to prevent reinfestation.

Yellowjacket traps

Trapping may catch hundreds or even thousands of individual wasps and still have little impact on the number of wasps around the school yard. However, the attractants in jar traps can draw wasps away from sensitive areas. Place traps out of children's reach near dumpsters or other food sources. Do not place traps on playgrounds or areas that are not normally attractive to wasps. Empty traps when full by placing them in the freezer or in a black plastic bag placed in the sun for a day to kill trapped yellowjackets. Wash traps in soapy water and refresh the bait.

Bees

Bees are generally mild mannered and pose a threat only if handled. They are often found on clover, wild flowers, and ornamental plantings. Because of their importance as pollinators, it is not advisable to apply pesticides to lawns, athletic fields or ornamental plantings where bees are active. To avoid stings, do not allow children to walk bare footed in these areas.

Occasionally, honeybees will swarm to seek a new site for the growing colony. Because there is no nest to defend, bee swarms are usually docile if left alone. It is common for a swarm to rest for several hours or an entire day before flying off to a new nest site. However, swarms that have clustered in an area for several days may become defensive. If swarming bees have moved into a wall void or other opening, they will defend themselves when disturbed.

Schools that experience swarming bees can call the Division of Plant Industry, 207-287-3891. The Division maintains a Swarm List of beekeepers who are willing to retrieve swarms. If the bees present an unacceptable threat, call the local fire department; they will exterminate the swarm.

Anyone making pesticide applications on school property must be licensed by the Board of Pesticides Control. See "Standards for Pesticide Applications and Public Notifications in Schools".