

## **Yellowjacket Wasps**

Jennifer Lund, Maine State Apiarist  
Department of Agriculture, Conservation and Forestry  
Division of Animal and Plant Health  
Email: [jennifer.lund@maine.gov](mailto:jennifer.lund@maine.gov)

Yellowjackets are wasps that are typically black with yellow or white markings. They are social insects (like honey bees) with one queen and many workers that raise young, build comb, and forage for food. Several species in Maine maintain large nests with comb made of masticated wood pulp. Most species build nests in underground cavities, but a couple of species, known as aerial yellowjackets, build nests in trees or against buildings. Aerial yellow jacket nests are often mistaken for bald faced hornet nests. Wasps are considered beneficial because they eat many insects that harm agricultural crops, including caterpillars, grasshoppers, and katydids.

A mated queen that overwintered in a sheltered location emerges early in the spring and searches for a good nesting site. Upon finding an appropriate site, she will build a small nest, lay eggs, and provision young with masticated insects. After the first set of workers emerge, they take over rearing young and building the nest, leaving the queen to lay eggs. In the fall, the colony raises queens that mate, overwinter in sheltered locations, and start new nests the following spring. The colony dies after the first hard frost in the fall.

Typically, yellowjackets are a minor nuisance to honeybee hives, occasionally stealing a bee or feeding on broken honeycomb while the hive is open during an inspection. As summer ends and fall starts, the number of honey bees in a colony decreases while the yellowjacket populations are still increasing. During this time of the year, there is little forage available for yellowjackets, making honey bees a source of prey. In a normal year, as the wasp populations hit their peak, Maine gets its first fall frost, killing the yellow jacket colony. In years with an extended warm falls or late hard freezes, yellowjackets can become problematic for honeybee hives. The wasp numbers continue increasing to the point where they can destroy moderately strong hives.

Although yellowjacket damage to hives is minimal or nonexistent during early spring and summer, you can start protecting your hives in the spring by catching emerging yellowjacket queens either by hand/net or using a commercially available pheromone trap. The queens are larger than workers and can often be found feeding on blooming flowers or investigating potential nesting sites. By reducing the number of wasp queens establishing colonies in the spring, you can reduce the number of nests in the fall.

In the fall when the nectar and other wasp food sources start diminishing, vigilance is important. Clean up fermenting fruit (apples, pears, peaches, etc.) around the hives which can draw wasps into the area. Many of the same protocols beekeepers use to prevent robbing from other honeybee colonies are also effective for preventing yellowjacket problems. Reduce entrances to a couple of bee widths and close/screen top entrances, especially in weaker hives. Make sure your equipment is in good repair. Fix any cracks, breaks and holes in your equipment that can allow yellowjackets to sneak into hives past guard bees. If you are working in your hives, move quickly, keeping hives open only as long as needed. Clean up any burr comb following inspections. This material can draw wasps to the hive. Finally, only use internal hive feeders for supplemental feed.

While yellowjackets can be a nuisance and may impact honeybee hives, in general they are beneficial and should be left alone. Being prepared for them in the late summer into fall will allow your bees and the yellowjackets to live side by side in peace.