

Why are bees and wasps so busy in autumn?

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"Dare to Bee" honey is available at the UDairy Creamery.

(Phys.org)—You buy a cider doughnut at the apple orchard and they quickly find you. Your kid opens a sports drink at the soccer field and they show up. You dine on the deck on a warm afternoon and sure enough, there they are.

This time of year, [bees](#) and [wasps](#) seem to be everywhere. Why won't they buzz off?

University of Delaware bee researcher Debbie Delaney can't clear the bees and wasps from your backyard barbecue but she can shed some light on why these insects are busy in autumn. Given how beneficial these species are to humans (yes, wasps, too) she hopes people will become more tolerant of their activity this time of year.

"Bees aren't trying to sting you or ruin your outdoor fun," says Delaney, assistant professor of entomology and [wildlife ecology](#) in the College of Agriculture and Natural Resources. "It's just that autumn is a particularly important time for honeybees and [native bees](#) as they get ready for winter."

In late summer and fall, [worker bees](#) labor long hours, collecting enough nectar to feed and maintain the colony throughout the winter. Bees visit flowers to obtain carbohydrates (nectar) and protein (found in the pollen). Late-blooming flowers that feed the bees include asters, chrysanthemums, goldenrod and Russian sage.

"As the days shorten, the bees know it's time to go into this food-gathering mode," says Delaney. "If supplies run low during the winter, beekeepers can feed bees various sugary concoctions—for example, sugar syrup, [corn syrup](#) or granulated sugar in the form of sugar boards. But wild bees are out of luck in this regard. Their colonies may not survive if they didn't make adequate preparations."

For the most part, bees hunker down and stay in the hives all winter. On unseasonably warm winter days, they will come out to remove waste from their abdomens and the hive, clean themselves, and forage. Of course, there isn't much to forage in the dead of winter so provisions gathered in fall are critical to the success of the hive.

While bees are busy getting ready for the season ahead, wasps are taking advantage of a brief, well-deserved retirement.

"In late summer and fall, when the queen wasp stops laying eggs, the worker wasps change their food-gathering strategy," says Delaney.

"Earlier in the season, the wasps were busy collecting insects – a protein source – for the colony's young. But now they're intent on getting sweets and carbohydrates for their own consumption."

Adult wasps have just a few weeks to binge on carbohydrates before they die off at the first hard frost. They deserve some fun, considering the good that they do.

"I don't think many people realize that wasps are beneficial insects," says Delaney. "But they are true carnivores and engage in a lot of insect collecting earlier in the season. They are predators of a number of pest insects, including mosquitoes, flies and beetle larvae."

Wasps that do enjoy a longer lifespan are the newly mated gynes (aka, queens). They over winter alone, awaiting the first signs of spring, which signals them to start the creation of their own nest.

Compared to wasps, there's much more awareness of the critical role that bees play to human life. If honeybees disappeared, food would be scarce, as colonies stopped pollinating fruit, nut and vegetable crops. And if all 20,000-plus species of bees in the world were to disappear, the results could be catastrophic.

Here in Delaware, residents can thank honeybees and native bees for pollinating a cornucopia of crops, including apples, asparagus, blueberries, broccoli, cabbage, carrots, cantaloupe, cucumber, eggplant, peaches, pears, peppers, pumpkins, strawberries, tomatoes, watermelon and more, notes Delaney.

Plus, the [honeybees](#) share their honey with us, too. Delaney and her students pulled honey from the UD Apiary in late July and August and

it's now for sale for at the UDairy Creamery. This is the second season that UD honey has been available to the public.

Branded with the moniker "Dare to Bee," the first harvest was golden in color and had a light taste, which reflects the fact that the bees obtained a lot of pollen and nectar from a stand of black locust trees near the apiary. The second harvest is darker in color and has a caramel flavor representing a blend of late season native and introduced species such as asters and knotweeds.

"Dare to Bee" honey sold out fast last autumn. If you'd like to try it, buzz on over to the UDairy Creamery soon. It's located behind Townsend Hall on the university's Newark campus. For store hours and more info, go to the [website](#).

Provided by University of Delaware

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