

Who Has Been Shooting Holes In My Rafters?

DOUGLAS B. JONES

MT. VERNON, ILL.



Every spring, I get numerous calls about these large yellow and black bumble bee like insects that dive bomb people who venture near, while others are making sawdust out of the wooden rails and rafters in their barns, porches and other wooden structures. The callers will usually then describe small holes in wood that look like someone has shot them with a 45-caliber bullet. This is the work of carpenter bees. Two species are common to the eastern United States, *Xylocopa virginica* and *Xylocopa micans*.

Carpenter bees are similar in size and appearance to bumble bees. However, they are easy to tell apart from the fact that carpenter bees have relatively shiny, non-hairy abdomens, while bumble bees are quite hairy. Other differences are that carpenter bees are solitary insects that do not live in colonies, while bumble bees are gregarious social insects that often live in large colonies in nests in the ground.

Male and female carpenter bees overwinter as adults inside the tunnels they carve in the wood. Adults emerge in the spring (April and early May) and mate. There is one generation per year. Males are more aggressive and live for a much shorter time than females. However, males are all bluff – they have no stinger and, as such, cannot sting. Females have a stinger but are reluctant to use it.

Females bore holes into wood using their strong jaws. Because nest construction is diffi-

cult, they usually reuse and enlarge an old nest rather than chew out a new one. Nests consist of a single round hole that extends into the wood for 1 or 2 inches, where it then makes a 90-degree turn and follows the grain of the wood, sometimes extending 2 or more feet.

Once the nest is excavated, she will make a series of brood cells that are furnished with a mixture of pollen and nectar. She lays an egg on top of this mass and then walls the cell off with a plug of wood pulp. She will create ten or more of these cells before she dies. The larvae complete development in about two months, and they generally remain in the nest for several weeks before they chew through the cell partitions and make trips outside in late summer to collect pollen for winter use. They overwinter inside the tunnels and emerge the following spring to repeat their life cycle.

Carpenter bees will attack most types of wood products. But, they tend to avoid wood that is covered with bark or a good coat of paint. Wood stains provide little, if any, protection.

Carpenter bee control consists of inspecting wood surfaces for need of repainting.

Non-chemical methods consist of inserting a wire into the nest entrance to crush any bees inside and plugging the entrance. Dust formulations of insecticides such as Sevin or one of the pyrethroids (bifenthrin, cyfluthrin, deltamethrin, permethrin) can provide control if they are dusted into the nest entrance. Allow the bees a couple of days to spread the dust throughout the nest and then seal and paint the entrance. Δ

DR. DOUGLAS B. JONES: University of Illinois Extension Specialist, Integrated Pest Management.



Link Directly To: **SYNGENTA**