UNIVERSITY OF KENTUCKY

COLLEGE OF AGRICULTURE ● DEPARTMENT OF ENTOMOLOGY

ENTFACT-611

CARPENTER BEES

Mike Potter, Extension Entomologist

In the late-spring and early summer, homeowners often notice large, black bees hovering around the outside of their homes. These are probably carpenter bees searching for mates and favorable sites to construct their nests. Male carpenter bees are quite aggressive, often hovering in front of people who are around the nests. The males are quite harmless, however, since they lack stingers. Female carpenter bees can inflict a painful sting but seldom will unless they are handled or molested.

Carpenter bees resemble bumble bees, but the upper surface of their abdomen is bare and shiny black; bumble bees have a hairy abdomen with at least some yellow markings (Fig. 1). Despite their similar appearance, the nesting habits of the two types of bees are quite different. Bumble bees usually nest in the ground whereas carpenter bees tunnel into wood to lay their eggs. Bare, unpainted or weathered softwoods are preferred, especially redwood, cedar, cypress and pine. Painted or pressure-treated wood is much less susceptible to attack. Common nesting sites include eaves, window trim, facia boards, siding, wooden shakes, decks and outdoor furniture.

Fig. 1. Bumblebee (top) and carpenter bee (bottom). Abdomen of carpenter bee is dark, shiny and lacks hairs.

Carpenter bees overwinter as adults in wood within abandoned nest tunnels. They emerge in the spring, usually in April or May. After mating, the fertilized females excavate tunnels in wood and lay their eggs within a series of small cells. The cells are provisioned with a ball of pollen on which the larvae feed, emerging as adults in late summer. The entrance hole and tunnels are perfectly round and about the diameter of your finger (Fig. 2). Coarse sawdust the color of fresh cut wood will often be present beneath the entry hole, and burrowing sounds may be heard from within the wood. Female carpenter bees may excavate new tunnels for egg laying, or enlarge and reuse old ones. The extent of damage to wood which has been utilized for nesting year after year may be considerable.

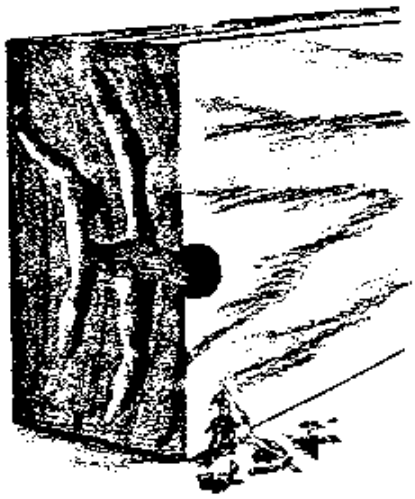

Fig. 2. Carpenter bee entrance holes are perfectly round and about the diameter of your finger. Nest tunnels are shown

Control

Carpenter bees prefer to attack wood which is bare, weathered and unpainted. Therefore, the best way to deter the bees is to paint all exposed wood surfaces, especially those which have a history of being attacked. Wood stains and preservatives are less reliable than painting, but will provide some degree of repellancy versus bare wood. To further discourage nesting, garages and outbuildings should be kept closed when carpenter bees are actively searching for nesting sites.

Liquid sprays of carbaryl (Sevin), chlorpyrifos (Dursban), or a synthetic pyrethroid (e.g., permethrin or cyfluthrin) can be applied as a preventive to wood surfaces which are attracting bees. Residual effectiveness of these insecticides is often only 1-2

weeks, however, and the treatment may need to be repeated. Tunnels which have already been excavated are best treated by puffing an insecticidal dust (e.g., 5 percent carbaryl) into the nest opening. Aerosol sprays labeled for wasp or bee control also are effective. Leave the hole open for a few days after treatment to allow the bees to contact and distribute the insecticide throughout the nest galleries. Then plug the entrance hole with a piece of wooden dowel coated with carpenter's glue, or wood putty. This will protect against future utilization of the old nesting tunnels and reduce the chances of wood decay.

Although carpenter bees are less aggressive than wasps, female bees provisioning their nests will sting. Treatment is best performed at night when the bees are less active, or while wearing protective clothing.