Nature’s carpenters: Wood destroying ants

Carpenter ants are the most notorious ants for Nebraska homeowners, often called out as the “big black ants.” They are feared because they excavate their nests in wood, which cause damage to building materials of our homes. Carpenter ants, unlike termites, do NOT eat wood. As their name implies, these ants are carpenters. They carve tunnels into wood with chewing mouthparts, creating smooth, sandpaper-like galleries. The wood is kicked out as small piles of sawdust.

**Signs of carpenter ants**
- Coarse sawdust with insect parts
- Damaged wood with smooth galleries (no mud or soil)
- Foraging worker(s)
- A large number of winged ants
- Crinkling noises in the walls

**Identification**

The structure between the thorax and abdomen (called a gaster in ants) is the petiole, and ants are grouped based on whether their petiole has one node or two. Carpenter ants have one node and unlike termites, they do not eat wood. As their name implies, these ants are carpenters. They carve tunnels into wood with chewing mouthparts, creating smooth, sandpaper-like galleries. The wood is kicked out as small piles of sawdust.

**Growth of a colony**

All ants are social, which means they live in large colonies with overlapping generations, have a distinct division of labor and collectively care for the young. The formation of a colony starts with a single fertilized queen. The queen lays eggs and raises daughter worker ants, which help grow the colony and feed, raise and protect the larvae and pupae.

Carpenter ants are polymorphic, which means they have workers of different sizes, called major and minor workers. Carpenter ant colonies can be a few thousand individuals to 15,000. After several years, the queen produces males and winged reproductives (called alates or swarmers) to disperse in a nuptial flight and start new colonies. This is a seasonal and/or annual event, which are triggered by environmental conditions such as temperature and rainfall.

**Food and foraging**

Carpenter ants forage for solid and liquid food, carbohydrates and protein. They feed on a variety of food sources including sugary honeydew secretions produced by plant pests like aphids and mealy bugs, plant exudates and other insects. They also scavenge on carcasses.

**Control methods for homeowners**

- Remove food sources (this may mean reducing sap-feeding insects that produce honey dew).
- Reduce sources of moisture (roofs, leaky windows or skylights, poor grading, full or faulty gutters and downspouts, condensation, malfunctioning appliances).
- Eliminate wood to soil contact.
- Remove vegetation cover from foundation.
- Prune trees and shrubs so there is no contact with the structure.
- Seal cracks and holes like utility entrances and wires.
- Provide adequate ventilation in crawlspaces, basements and attics.
- Locate the nest and treat with labeled insecticide.
- Only use bait labeled for carpenter ants.
- This can be liquid, gel or solid granular, but must be attractive, palatable and slow-acting. Sugar-bait alone will not eliminate the colony due to the wide range of nutritional requirements.
- Consider contacting a professional pest management company.