Horticulture Diagnostic Laboratory

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Ants in Houses

Family: Formicidae

Fig. 1. A photograph of an ant showing the 3 distinct body regions. On the right is the head with the 2 elbowed antennae attached. In the middle is the thorax that contains the 6 legs and the 2-segmented petiole (waist). On the left is the bulb shaped gaster (abdomen). Notice that the gaster is attached to the thorax by means of the 2-segmented petiole. (Photograph courtesy of Tom Murray www.pbase.com/tmurray74)

Injury: There are many types of ants that may be found in houses. Some are actual household pests, while others occasionally wander in to look for food or water.

The most common species found in houses in the Northeast include: carpenter ants (*Camponotus* spp.), pavement ant, (*Tetramorium caespitum*), and odorous house ant (*Tapinoma sessile*). Additional species frequently found indoors include: cornfield ants (*Lasius spp.*), yellow ants (*Acanthomyops* spp.), acrobat ants (*Crematogaster spp.*), thief ants (*Solenopsis* spp.), little black ant (*Monomorium minimum*), and pharaoh ant (*Monomorium pharaonis*).

Carpenter ants can cause costly structural damage by their excavation of nesting galleries in wood. If this is the type of ant you have, click on the link below to download a factsheet: http://ccesuffolk.org/assets/Horticulture-Leaflets/Carpenter-Ants.pdf

Description: Ants have three body regions (head, trunk, and gaster) distinctly defined by narrow constrictions. They have elbowed antennae, and the gaster is attached to the thorax by a waist that consists of one or two small separated segments.

There are three distinct castes of ants: queen, male, and worker. There may also be different forms of each caste. Ants always live in societies known as colonies. Workers are wingless, but at mating time swarms of males and females are produced, usually winged.

Management

1. Store food in tight containers. Ants are often searching for sweets or greasy substances (such as potato chips) as food sources, and are often found in kitchens as a result. Clean up pet dishes when pets are finished eating. Ants may feed on a number of foods including meats, dairy products, pastries, fruits, animal fats, and vegetable oils, as well as dead insects. If ants are a particular problem, it may be helpful to store especially susceptible foods in the refrigerator.

2. Consider using ant traps or baits. Determine what the ants are feeding on - is it sweet substances, or protein or grease? Knowing what the ants are feeding on can help you to use ant traps effectively as a way of managing pest ants. Ant traps, which contain baits of boric acid or other poisons, attract the

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pest to the poison, avoiding the need to apply poison throughout the environment. In addition to traps there are baits available for ant pest management. The baits may offer a choice of sweets or protein and are more effective for a wide range of ants. (If ants are feeding on sweets, a bait with a sweet matrix may work best; on protein or grease - a protein matrix works best. However, some ants will switch food preferences, and if you are not sure which the ants like, there are products which offer both types of bait). Keep traps and baits out of the reach of children and pets. Although ant traps and baits are helpful for some species, they do not work for all species of ants. They also work when worker ants come and get food, not for swarming (winged) adults.

3. Try to locate the ant's nest and see if the ants can be excluded by needed repairs (caulking, repairing cracks in concrete floor, eliminating sources of moisture, etc.). Note the surfaces they crawl over and where the ants come from and where they go after feeding. This will help you determine if the ants are nesting inside, or coming in from outdoors. It is not always possible to locate the nest site - inside ants often nest between floor and sub-floor, in walls, behind baseboards, beneath cracked basement floors, in decaying or rotting wood, or even in piles of papers. If ants are nesting inside walls, opening walls to reveal the nest, and quickly vacuuming up the ants, can help to reduce or eliminate a colony. This often works best when the ants are inactive such as in the wintertime. Discard contents of vacuum bag after vacuuming up any live insects; insects may be killed by freezing if necessary.

4. If problems persist despite efforts to correct situations that allow ants to enter and cleaning up food, it may be useful to spot treatment with a household insecticide labeled for ant control, where ants enter. Pesticides should be used only as a last resort for ant control. Never use pesticides on food preparation or handling surfaces. As of 2011, a number of pesticides are registered in New York State for use in the home, including cyfluthrin, deltamethrin, and permethrin, and two less toxic registered pesticides: boric acid and diatomaceous earth. Follow manufacturer's directions for rates and application methods. Other products may also be registered.

5. Some ants that nest in colonies in walls of houses and buildings will actually become more of a problem if pesticides are sprayed. This may cause the ants to scatter, and smaller colonies to become established. This lifestyle of budding off of smaller colonies is frequently seen in the pharaoh ant.

Reprinted from *Ants In Houses Family: Formicidae* prepared by Carolyn Klass, Senior Extension Associate, Department of Entomology, Cornell University, 4/1985.

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Links and registered pesticides up to date: 3/2011

The Pesticide Management Education Program (PMEP), in cooperation with the New York State Department of Environmental Conservation (NYSDEC), maintains a web site with a searchable database for pesticide products currently registered in New York State. Individuals who have Internet access can locate currently registered products containing the active ingredients suggested above at http://pims.psur.cornell.edu/ (NYS PIMS).

This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department of Environmental Conservation (NYSDEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension Specialist or your regional NYSDEC office. Read the label before applying any pesticide.

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