OVERVIEW

Ants are the number one household and nuisance pest in the United States. While they are beneficial to the environment, they also pose health and property risks such as food contamination and structural damage. Although small, their vast numbers, complex colony structures and habits make them difficult to control. In fact, ants are one of the top pests for which PMPs would like better control.

This guide discusses many facets of ant control – identification, inspection, best practices and tips and tricks – everything you need to know to get it right the first time.

ANT FACTS

Highly polygyne species like Argentine ants have 17 queens for every 1000 workers. Affect the most ants possible by using a product that is transferred back to the colony.
# Identifying Ants

Species commonly found throughout the United States.

## Odorous House Ants

*Tapinoma sessile*

Odorous house ants are one of the most widespread species native to the United States and can nest and forage indoors and outdoors. They are 1/8-inch in length and the workers are black to brownish in color. They have a single node, 12-segmented antennae, with no club and give off a pungent smell when crushed, distinguishing them from other small ants.

## Argentine Ants

*Linepithema humile*

Argentine ants occur throughout the coastal United States, especially California. Colonies may cover hundreds of miles and contain many queens within numerous satellite nests. They usually nest outdoors, but forage both indoors and outdoors. They are 1/8-inch in length and the workers are light to dark brown in color. They have a single node and 12-segmented antennae, with no club.

## Carpenter Ants

*Camponotus spp.*

Carpenter ants are the largest pest ant commonly found in the United States. They can nest and forage both indoors and outdoors, but typically nest in decayed or damaged wood. They are 1/4 to 1/2-inch in length and the workers vary in color but are often black or bi-colored red and black. They have a single node, 12-segmented antennae, with no club and a smooth, rounded thorax.

## Pavement Ants

*Tetramorium spp.*

Pavement ants consist of several pest species throughout the United States. They usually nest outdoors, but forage both indoors and outdoors. They are 1/8-inch in length and the workers are dark brown to black in color. They have two nodes, 12-segmented antennae, with 3-segmented club and can be identified by the deep grooves on their head and thorax.
## SPECIES

### RED IMPORTED FIRE ANTS (RIFA)
*Solenopsis invicta*

RIFAs occur in the southern United States where they build large, dome-shaped mounds in soil. They usually nest outdoors, but forage both indoors and outdoors. They are 1/8 to 1/4-inch in length and workers have a reddish head and thorax with a brown/black abdomen. They have two nodes, 10-segmented antennae, with 2-segmented club and a painful sting.

### PHARAOH ANTS
*Monomorium pharaonis*

Pharaoh ants are almost exclusively found indoors in the United States. Mature colonies may contain many queens within numerous satellite colonies. They are 1/16-inch in length and the workers are yellowish light brown to reddish in color. They have two nodes and 12-segmented antennae, with 3-segmented club.

### ROVER ANTS
*Brachymyrmex spp.*

Rover ants occur throughout the southern United States. They usually nest outdoors, but forage both indoors and outdoors. They have a very high moisture requirement, which leads to infestations inside structures near kitchens and bathrooms. They are 1/16-inch in length and the workers are dark brown to black in color. They have a single node that is flattened and angled up at the thorax and 9-segmented antennae, with no club.

### TAWNY CRAZY ANTS
*Nylanderia fulva*

Tawny crazy ants are native to Brazil but are extremely problematic for states that border the Gulf of Mexico, particularly Florida and Texas. They usually nest outdoors, but forage both indoors and outdoors. They are 1/8-inch in length and the workers are reddish brown in color. They have a single node, 12-segmented antennae, with no club and a long scape.

### RANGE

**REPORTED INFESTATIONS/Locations based on iNaturalist and iDigBio**

**SPECIES**

**SIZE:** 1/8 to 1/4-inch in length

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<tbody>
<tr>
<td>BLACK CRAZY ANTS</td>
<td><img src="map1.png" alt="Map" /></td>
<td><img src="size2.png" alt="Black Crazy Ant Size" /></td>
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<tr>
<td>Paratrechina longicornis</td>
<td><img src="map2.png" alt="Map" /></td>
<td><img src="size3.png" alt="Black Crazy Ant Size" /></td>
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<td>Black crazy ants are possibly the most broadly distributed ant species globally. They can nest and forage both indoors and outdoors and often trail indoors in search of water. They have erratic and rapid movement and a habit of not following dedicated trails. They are 1/8-inch in length and the workers are black in color. They have a single node, extraordinarily long 12-segmented antennae, with no club and the body has long hair-like projections.</td>
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<td>LITTLE BLACK ANTS</td>
<td><img src="map3.png" alt="Map" /></td>
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<td>Monomorium minimum</td>
<td><img src="map4.png" alt="Map" /></td>
<td><img src="size5.png" alt="Little Black Ant Size" /></td>
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<td>Little black ants are native to North America and typically found in the northern and eastern sections of the United States and southward to the Pacific coast. They can nest and forage both indoors and outdoors, but primarily nest in soil, rotten wood, woodwork or masonry of houses. They are 1/16-inch in length and the workers are shiny black to brownish black in color. They have two nodes and 12-segmented antennae, with 3-segmented club.</td>
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<td>GHOST ANTS</td>
<td><img src="map5.png" alt="Map" /></td>
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<tr>
<td>Tapinoma melanocephalum</td>
<td><img src="map6.png" alt="Map" /></td>
<td><img src="size7.png" alt="Ghost Ant Size" /></td>
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<td>Ghost ants are one of the most broadly distributed ant species globally. They are well established in Florida and Hawaii, expanding into Texas. They are highly adaptable and readily nest and forage both indoors and outdoors. They are 1/16-inch in length and the workers have a dark head and thorax with translucent abdomen and legs. They have one node that is fattened and hidden from view and 12-segmented antennae, with no club.</td>
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**ANT FACTS**

- **SIZE:**
  - BLACK CRAZY ANTS: 1/8-INCH IN LENGTH
  - LITTLE BLACK ANTS: 1/16-INCH IN LENGTH
  - GHOST ANTS: 1/16-INCH IN LENGTH

Certain ant species, such as odorous house ants, Argentine ants and black crazy ants, have satellite colonies and can move locations frequently. Use a product that is labeled for outdoor broadcast treatments to achieve better control.
BEST PRACTICES

INSPECTION & MONITORING

Know Your Enemy
- Correct identification is the most important step in achieving rapid, lasting control. What works for some ant species may make the problem worse for others.

Locate Nests
- Outdoors: Many ants nest in or around dark, damp environments. Look for sprinklers and drip irrigation lines, leaky water hoses, water features, underneath bark mulch and landscaping stones.
- Indoors: Look underneath kitchen and bathroom sinks, around showers and tubs, dishwashers, washing machines, water heaters, pantries and pet food storage areas.

Locate Foraging Trails
- If nests are well-hidden, try to locate foraging trails. These can lead you to nesting sites and sources of food and water.

SANITATION & HABITAT MODIFICATION

Remove Food Sources
- Outdoors: Remove materials or vegetation that serve as nesting sites, including piles of old lumber, firewood, railroad ties, leaf litter, and other debris.
- Indoors: Sanitation is pest control. Store both human and pet food in tight containers, remove food debris, and clean up any spilled liquids that might attract ants indoors.

Eliminate Honeydew
- Discuss the removal or treatment of plants that harbor honeydew-producing insects such as aphids, scales and whiteflies.

Exclude Access Points
- Trim trees and prevent other landscape features from contacting structures and providing discreet access to attics and eves.

Some ant species, such as odorous house ants, ghost ants and carpenter ants, can nest both indoors and outdoors. Having a single product that can treat both locations increases efficiency, saving you time and money.
KEY STRUCTURAL HOT SPOTS

OUTDOOR RESIDENTIAL

1. Citrus trees
2. Tree/branch touching home
3. Power line connection to home
4. Large paver stones
5. Potted or window box planters
6. Sub-area vents
7. Fountains or water features

INDOOR RESIDENTIAL

1. Baseboards
2. Behind refrigerators
3. Under cabinets
4. Entry points (windows, doors)
5. Wall voids
6. Under kitchen sinks
BEST PRACTICES

TREATMENT

Inside vs. Outside

- Some species nest outside and are only in your home for food and water. Use non-repellent liquids and baits to reduce numbers, followed by a barrier treatment once the interior infestation is taken care of.

- Treat interior-nesting ants with baits, especially pharaoh ants, as repellent sprays often can cause budding, or creation of satellite colonies, making the problem worse.

It Pays to Look Up

- Ants often use tree branches or other objects to access structures from up high. Treat and bait around the bases of trees, or spray eves and other points of access to intercept foraging ants.

Draw Them Out

- Certain species such as Argentine ants, odorous house ants, ghost ants and rover ants forage indoors during the summer in search of food and water. Use baits outdoors to redirect their trails back outside.

Keep Them Out

- Use fast-acting barrier treatments to prevent ants from entering structures, but be careful not to trap them inside.

ANT FACTS

Environmental factors can impact ant foraging behaviors. Treat with a long-lasting residual product that continues working when foraging resumes.
CUSTOMER COMMUNICATION

Delayed Gratification

- Many non-repellent products are designed to allow ants to transfer material back to queens and larvae. Let your customers know if you are using a non-repellent and to call you if they still see ants 3-5 days post treatment.

“You’re Not Helping”

- Customers will often spray over-the-counter products which can interfere with baiting and non-repellent efficacy. Tell them it’s important that they do not try to treat the infestation themselves.

BUSINESS & PRODUCT TIPS

Don’t Cross-Contaminate

- Don’t mix non-repellent materials in equipment used for repellent materials without thoroughly rinsing first.

Follow Up

- Sometimes infestations may be too large to handle in a single treatment, or there are hidden nests that were overlooked. Follow up within 1-2 weeks to ensure the issue is under control.
TIPS AND TRICKS

1. **Pay attention to direction.** Look for trailing ants. If foragers are moving solid food away from the structure, focus your inspection outdoors. If foragers are moving solid food into the structure, focus on the interior or crawlspace.

2. **Lure them out with food to find hidden nests.** Locating trailing ants is critical. Have your customer pre-bait the ants before you arrive, if they are willing. Have them place a food source like honey, syrup, etc. in areas where they have seen ants (use a piece of wax paper for easy cleanup).

3. **Ask the right questions.** Customers can give vital information that will focus your inspection. When an ant colony is in a wall void or under the structure, foraging ants can find food in the structure even during a rain event. Ask if the activity stops when it is raining.

4. **Educate your customer.** Homeowners will often treat with over-the-counter products even after you have performed proper treatment. Explain that such action will not only make your baiting program less effective, it can make the problem worse.

5. **Attract-and-kill.** Enhance performance of a liquid concentrate by baiting in the treated area. This will increase the number of ants that contact the treated surface, and the combination of bait and non-repellent will reach deep into the colony.

6. **Don’t lure them inside if they aren’t there.** When a colony is nesting on the exterior of the structure it is important to limit the food sources on the interior, including the use of baits.

7. **Ants can be picky.** At some point, everyone has applied a bait that was ignored by trailing ants. One reason might be the colony fragment is not looking for food but is moving between nesting sites. Try granular and gel baits to determine which is most preferred.

8. **Forget the paradigm Kill the queen, “Kill the colony”.** With highly polygynous species, there can be hundreds of queens across multiple nests. Affect the most ants possible within the first few days of treatment by using baits and transferable non-repellents together.
Many ant species mass recruit to resources. Use a non-repellent insecticide to maximize colony exposure and ensure recruited ants don’t die too quickly.