PROFESSIONAL
PEST MANAGEMENT

YOU HAVE QUESTIONS. SYNGENTA HAS **ANTS**WERS.

A practical guide for identifying, understanding and controlling ants.

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A Guide to Comprehensive Ant Control

Ants can be extremely difficult to control because they are resilient and adept at finding niches in which they can thrive. This ANTSwers brochure from Syngenta Professional Pest Management can help you identify various ant species, understand their biology and behavior and select the most effective treatment for your customers' properties.

TIPS FOR AN EFFECTIVE ANT PROGRAM

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Steps to Smart Ant Control

There are four elements of an effective ant program that will help make control simpler and more successful.

1) **Thorough inspection** – Inspect for ants both indoors and outdoors. Pay close attention to foliage, exterior cracks, gaps, entryways and wet areas that could be a source of food or water.

2) **Indoor treatment** – It is sometimes necessary to treat trails of foraging ants indoors, such as areas around doors and windows. These trails and their surrounding areas can be spot-treated with Demand® CS insecticide, Arilon® insecticide or Tandem® insecticide. If trails are located indoors, Optigard® ant gel bait or Advion® ant gel bait can be used in cracks and crevices in areas where ants have been seen.

3) **Outdoor baiting and spot treatments** – Offer an alternative food source by applying Optigard ant gel bait or Advion ant gel bait near the foraging trails outside of a structure. For spot treatments, drench ant colonies with a liquid insecticide. Inspect landscape ornamentals that are close to the home. Soil or foliar treatments with a systemic insecticide, such as Tandem or Optigard Flex, can control honeydew-producing insects that feed on the landscape ornamentals. Ants will "farm" these insects to feed on the honeydew they produce. Eliminating this food source can also eliminate the ant population.

4) **Perimeter application** – Demand CS and EZ insecticides are effective as perimeter treatments, which are helpful when ants are trailing from an adjacent structure. When applied at recommended rates, Demand CS and EZ create a complete control band around a structure by depositing more than 10,000 microcaps per square inch of a surface. Arilon is also effective as a large volume application. It can be diluted and applied at high volumes to provide comprehensive coverage, resulting in more thorough control.

Baits vs. Sprays: How to Choose

Baits and sprays are the two options Pest Management Professionals (PMPs) have to control ant infestations. Knowing when it is appropriate to use a spray, a bait or a combination of the two is an important factor in providing effective ant control. The list below highlights the differences between baits and sprays to help you decide when you should use each option.

	Baits	**Sprays**
Application	Baits can be applied in cracks and crevices and can be placed along an ant trail.	Sprays are applied to areas designated on a product's label to achieve widespread coverage.
Longevity	Baits can last several weeks when applied indoors. When used outdoors, they are subjected to a variety of environmental conditions, as well as consumption by target ants and possibly non-target pests, which can impact the longevity of residual control.	Depending on the formulation, active ingredient, location of application and environmental conditions, sprays can last four to 12 weeks or more.
Range of Pests	Baits are formulated to target a specific pest.	Sprays are effective on a broad range of pests.

Efficacy Relative to Sanitation	Bait consumption can be limited if there are other food sources and the area is not sanitized.	Sprays are not often negatively affected by a lack of sanitation, and can even perform better in areas where ants are actively foraging for other food sources.
Experience of Technician	For optimum results, technicians need to understand the feeding and foraging habits of the target pest and pinpoint the foraging locations.	Typical perimeter sprays are applied according to standard pesticide labels and are designated to control a broad range of insects. Technicians are not required to have as much knowledge of specific target species.
Indoors or Outdoors	Baits are most commonly used inside, but can also be used outside to provide thorough control.	Sprays are typically intended for outdoor use, but are often labeled for specific indoor uses.
Ant Colony Types	Baits are most effective on small, single-queen colonies, larger colonies that are easier to treat or where nests may be difficult to reach with a spray.	Sprays are better suited for large colonies with multiple queens and nesting locations.

Information from PCT's *To Bait or Not To Bait? That is the Question* article. Grzesiek Buczkowski, Ph.D. April 2013

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Increase Control by Controlling a Food Source

One of the most popular food sources for many ant species is honeydew, which is produced by homopterous insects such as scales, aphids and mealy bugs that feed on landscape vegetation. To control these insects, apply Optigard Flex or Tandem to either the soil beneath plants or to the foliage of plants. These non-repellent products move through the plant systemically to help control homopterous pests.

Finding Ants: Time-Saving Tips

Practicing a few proven field tips can save time when uncovering the source of an ant infestation.

- **Carpets** – Inspect along walls and under the carpet in front of places like fireplaces and sliding glass doors. When foraging ants are found, trace them back to the location of their entry point or colony.
- **Sinks/outlets** – Indoors, ants tend to emerge from wall voids below bathroom or kitchen sinks, in search of food or water. They can also emerge from connection areas such as electrical outlets. Seek out all of the ant trails and trace them back to the source of entry.

- **Foundations** – When ants are found inside along exterior walls, look for colonies living in the soil beside the foundation, or inside wood-framed walls. Outdoors, look closely at any cracks, weep holes, utility penetrations and around doors and windows.
- **Vegetation** – Pull back vegetation that rests around foundations and patios to look for ants, and attempt to follow foraging ants back to their colony.
- **Ground surfaces** – Check under all items sitting on the ground, especially those near the foundation of a structure. Ants commonly follow the edge of sidewalks, driveways, landscape timber and even garden hoses left on the ground.
- **Mulch** – Mulch often harbors numerous colonies of pavement ants, fire ants, odorous house ants, crazy ants and Argentine ants. Rake mulch back from the foundation to check for any of these ant colonies.

ANT IDENTIFICATION GUIDE

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ANT IDENTIFICATION GUIDE

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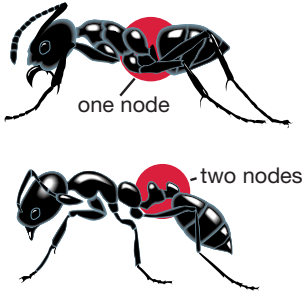
Behavioral Clues and Specific Treatment Tips

Behavior clues and the biology of each ant are unique to each structure-infesting ant species. Knowing what distinguishes ant species from each other provides clues about where to look for an ant's colony.

The segment between an ant's thorax and abdomen is called a "pedicel" and has either one or two segments called "nodes." Ants can be divided into two groups: those with one node and those with two nodes.



ARGENTINE ANTS can aggressively re-infest treated areas from adjacent properties. After finding and treating colonies, a perimeter treatment should be applied to soil or vegetation around structure foundations and at the edge of the property. If colonies cannot be located, ant baits used in large amounts can be effective.

Argentine ants have only one node and an uneven thorax. It closely resembles an odorous house ant. The difference between the two is that the node of the Argentine ant is sharp and easily visible.

From: www.antweb.org. Accessed 27 January 2016

CARPENTER ANTS can be best controlled by treating colonies located in void areas and wood. Inspect for carpenter ants at night when the pests are most active. Make a spot application to the base of trees where colonies are located, or place Optigard ant gel bait or Advion ant gel bait at these colony sites. In areas where carpenter ants are abundant, perimeter treatments can help prevent ants from entering structures.

Carpenter ants have only one node. The thorax, when viewed from the side, is evenly rounded.

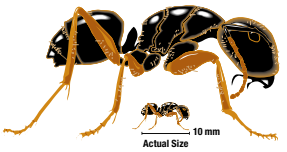


Photo by Erin Prado / **From**: www.antweb.org. Accessed 27 January 2016

CRAZY ANTS are one of the most difficult ants to control in structures. Their colonies are often numerous, and they are aggressive foragers. Perimeter treatments with Demand CS, Arilon or Tandem used in combination with an ant gel bait and a systemic treatment to vegetation is the best approach when crazy ant colonies are abundant outdoors.

Crazy ants have only one node, as well as extremely long legs and antennae.

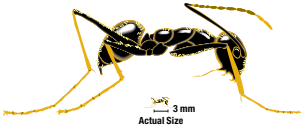


Photo by April Nobile / **From**: www.antweb.org. Accessed 27 January 2016

FIRE ANTS nest outdoors, but can enter structures to forage. Regular applications outdoors are often necessary because re-infestation from adjacent properties is common. Mounds can be treated by drenching with an insecticide or with Advion fire ant bait. When using a drench technique, be sure to thoroughly saturate the mound, as well as treat the area within four feet of the mound where worker tunnels often exist. Application of Advion fire ant bait to an entire lawn also helps limit re-infestation of treated areas, and a perimeter treatment helps prevent fire ant entry into structures.

Fire ants have two nodes and a stinger. The antennae have only 10 total segments and end in a two-segmented club.

From: www.antweb.org. Accessed 27 January 2016

GHOST ANTS are highly adaptable and can readily nest indoors or outdoors. Colonies may be moderate to large in size and contain numerous reproducing females that are extremely small (1.3 to 1.5mm long) and monomorphic (one-sized). Ghost ants often enter structures through cracks, crevices or screens and can forage in kitchens and bathrooms on sinks, counters and floors. Indoor colonies can be controlled with baits, and entry indoors should be restricted with perimeter treatments.

Ghost ants have only one node and an uneven thorax. The head and thorax are a deep brown color, while the legs and abdomen are milky white. The antennae have 12 segments that gradually thicken toward the tip.

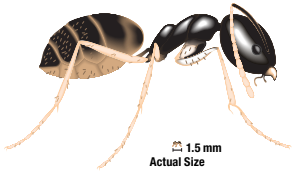


Photo by April Nobile / **From**: www.antweb.org. Accessed 27 January 2016

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LITTLE BLACK ANTS often have colonies outdoors, but tend to forage inside structures. Exterior spot treatments along foundations and around windows are helpful in preventing foragers from entering. Also look for trails and bait alongside the foraging path, before the trails reach a structure.

Little black ants have two nodes and are identical in appearance to the Pharaoh ant, except black in color.

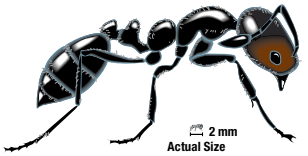


Photo by April Nobile **/ From**: www.antweb.org. Accessed 27 January 2016

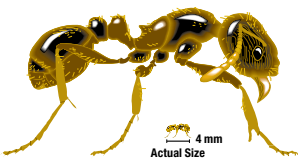
ODOROUS HOUSE ANTS live in the same types of areas around structures as Argentine ants. These ants also like to live behind vegetation, along foundations and under carpets inside homes. Perimeter treatments are helpful in preventing re-infestations, and systemic treatments to vegetation can help control honeydew-producing insects.

Odorous house ants have one node, which is flat in shape. The node is difficult to see because it is hidden by the abdomen.

From: www.antweb.org. Accessed 27 January 2016

PAVEMENT ANTS typically nest next to and under sidewalks and other types of slabs. They often enter structures through expansion joints in slabs. Application of an insecticide through these cracks may control the colony beneath and, in severe infestations, a slab floor may need to be drilled and treated using a properly labeled insecticide. To prevent a re-infestation, make a perimeter treatment to soil or vegetation around structures and to foundations.

Pavement ants have two nodes, and the head and thorax are covered with visible grooves.



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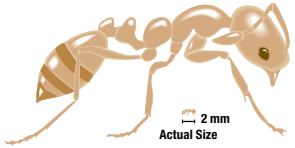
PHARAOH ANTS nest both indoors and outdoors, so a combination of treatments is often used to achieve effective control. A comprehensive baiting program can also control this ant species. In many Southern states, outdoor perimeter treatments are necessary to prevent re-infestation from outside sources.

Pharaoh ants have two nodes and are yellow in color, with a reddish-brown abdomen. The antenna ends in a three-segmented club.



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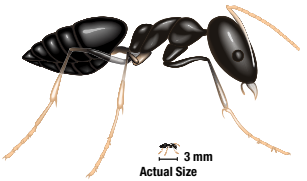
WHITE-FOOTED ANTS are major pests because they invade homes, have very large colonies and are difficult to control. These ants nest at or above ground level, rather than in the soil. In large colonies, there are large numbers of foragers that can invade homes to find nest sites and food. White-footed ants often forage along branches, shrubs and tree trunks to find plant nectar and honeydew.

White-footed ants have only one node, and the antennae have 12 segments. It is black to brownish-black in color and the lower parts of the legs (tarsi) are yellowish-white.



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SYNGENTA SOLUTIONS FOR ANT CONTROL

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SYNGENTA SOLUTIONS
FOR ANT CONTROL

SYNGENTA SOLUTIONS FOR ANT CONTROL

Advion ant gel bait is labeled to control 19 key ant species with its low-odor, non-staining and palatable formulation. The active ingredient in Advion can effectively differentiate between target insects and non-target insects. Ants that consume Advion share the bait and contaminate other ants in the colony, resulting in greater ant control.

Advion® Ant Gel bait

Advion fire ant bait provides effective, fast-acting control of fire ants. Research has shown Advion fire ant bait can provide total colony control in 72 hours, faster than any other fire ant bait on the market. Additionally, only two applications at a low use rate (1.5 lbs./A) are needed for year-long control.

Advion® Fire ant bait

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Advion insect granule offers the same effective control as other Advion products in a granular formulation. With particles of different sizes, Advion insect granule appeals to a wide variety of nuisance pests. The formulation of Advion has low odor and is non-repellent, which prevents insects from avoiding the product.

Arilon insecticide is a non-pyrethroid with flexible application methods for more comprehensive coverage. Additionally, Arilon features a slight delay in mortality once applied, which means ants can carry the product back to the harborage area and contaminate others in the colony. Within 48 hours, Arilon can quickly achieve thorough ant control.

Demand CS and Demand EZ insecticides with iCAP™ technology combine an advanced-generation pyrethroid with a microencapsulated formulation for control of multiple ant species. Microcaps of multiple sizes provide immediate and residual control between bi-monthly and quarterly service cycles.

Demand G insecticide harnesses the power of Demand CS in a granular formulation. The product is specifically engineered for the optimal release of its powerful active ingredient, *lambda-cyhalothrin*, making it more readily available from the granule. Demand G is also labeled for the control of several ant species including Argentine ants.

Demand® CS Insecticide

Demand® EZ Insecticide

Demand® G Insecticide

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Optigard ant gel bait has demonstrated excellent acceptance and extended palatability among a wide variety of ants. Studies show Optigard ant gel bait retains its palatability for more than two full weeks after baiting, and the product is readily transferred throughout a colony after initial ingestion.

Optigard® Ant Gel bait

Optigard Flex is a non-repellent insecticide that controls insects by both contact and ingestion. It is particularly effective against social insects such as ants, as well as honeydew producing insects that are a food source for ants. Optigard Flex can be applied as a liquid or foam, or tank mixed with Demand CS.

Optigard® Flex Liquid

Tandem insecticide is powered by two active ingredients, *lambda-cyhalothrin* and *thiamethoxam* to provide quick and efficient control of ants. iCAP technology protects Tandem against harsh weather conditions, while the systemic action of Tandem controls honeydew producers. It can be applied indoors, outdoors and in food handling establishments, as directed by the product label.

Tandem® Insecticide

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Syngenta Product Options

Treatment	Advion ant gel bait	Advion fire ant bait	Advion insect granule	Arilon insecticide	Demand CS/ Demand EZ insecticides	Demand G insecticide	Optigard ant gel bait	Optigard Flex insecticide	Tandem insecticide
Wall voids (foam treatment)								x	
Inside spot	x			x	x		x	x	x
Inside crack and crevice	x			x	x		x	x	x
Outside crack and crevice	x			x	x		x	x	x
Systemic drench or foliar spray				x (foliar only)	x (foliar only)			x	x
Outside spot	x	x	x	x	x	x	x	x	x
Outside perimeter			x	x	x	x		x	x
Outside broadcast/lawn		x	x		x	x			x
Outside mound	x	x		x	x		x	x	x

With its diverse portfolio of ant control products, Syngenta is committed to the ongoing success of your business. These solutions can help you keep your business practices effective and provide your customers with an environment free from a variety of ants.

To learn more about ant control and management, please visit **www.SyngentaPMP.com** or call 1-866-SYNGENT(A) (796-4368).

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In the State of New York, Tandem may only be applied for indoor uses.

GS 426.10002 (1/16) SCP 240-00004-F

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