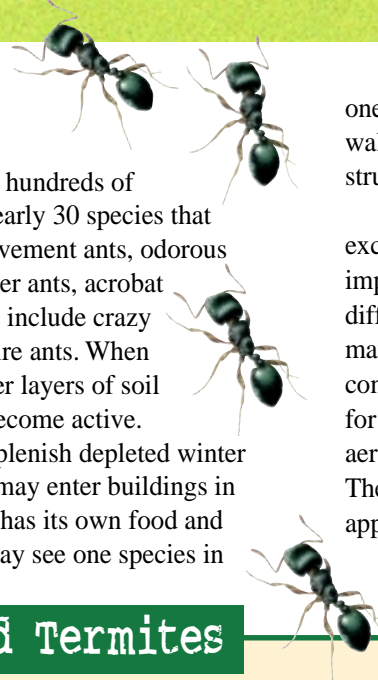


SPRING PESTS

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in colonies that may number in the hundreds of thousands or millions. There are nearly 30 species that will invade structures including pavement ants, odorous house ants, Argentine ants, carpenter ants, acrobat ants, and white-footed ants. Others include crazy ants, thief ants, Pharaoh ants and fire ants. When spring temperatures warm the upper layers of soil and heat the wall voids, ants can become active. They begin foraging for food to replenish depleted winter sources. It is at this time that they may enter buildings in search of more. Each of these ants has its own food and shelter preferences and thus you may see one species in



one location and others somewhere else. Some will nest in the wall void while others may live outdoors and enter the structure only to find food.

There are several ways to control ants. These include exclusion, using baits and applying liquid insecticides. It is important to know that each species may enter from a different location, may nest in a different part of the home, may eat different food, and that this may require specific control measures. This might include selecting the proper bait for the species or resisting the urge to spray with liquid or aerosol insecticides. The need for a professional is obvious. The professional can identify the species and apply the appropriate control measures.

Newly Introduced Termites

At least four non-native termite species have been introduced into the U.S. within the past 100 years. The Formosan termite, *Coptotermes formosanus* Shiraki, is the most wide-spread, damaging and aggressive of these. These have been established in several coastal states, especially in cities like New Orleans, La. and Charleston, S.C. for several decades and cause damage estimated at more than one million per year. Despite the fact that it is a “subterranean” termite species, if there is enough moisture, it can maintain indefinitely very large colonies without any contact with the ground at all. The other three species have become established only in southern Florida so far and only within the past few years. One species in the genus, *Heterotermes*, discovered near Miami in 1994, is a close relative of the desert subterranean termite in the southwestern U.S. and has potential to thrive in drier areas. *Coptotermes havilandi*, Holmgren, also found near Miami in 1996, is a very close relative of the Formosan termite. The most recently discovered species is *Nasutitermes costalis* (Holmgren), found near Ft. Lauderdale in 2001. It makes mainly arboreal nests (above ground or in trees) which might make it easier to eliminate than any of the subterranean species. Any of these species, and especially Formosan termites, can be carried to new locations within infested wood products (even old railroad ties have been found infested). This can pose a serious threat, especially in warmer regions, and some of these termites could establish long-term populations as far north as Memphis, Tenn.



TERMITES: Preventive Measures You Can Take

You can do several things as a homeowner to help prevent termite infestations including:

- **STACK** all firewood, lumber or other wooden items several feet away from your building.
- **KEEP** all wood supports of porches, patios, decks or separate buildings more than one foot from contact with your home’s foundations; and use only pressure-treated wood for all construction which contacts the ground. Even treated wood has a limited protection period.
- **MOVE** all wood-containing mulch (even cedar or redwood) and decorative wood chips at least one foot away from your foundation. Sand and stones can be just as attractive an alternative and they discourage pest (including termite) harborage next to your building.
- **REPAIR** leaking water lines or fixtures, especially if they wet any part(s) of your house. Repair any eaves, downspouts or roofs which allow your house to get wet even occasionally.
- **MONITOR** moisture levels and take steps to reduce moisture build-up in any crawl spaces.
- **RELOCATE** frequently-watered gardens or flower beds as far away from your house as you can.
- **CHANGE** your outdoor lights from “white” bulbs to “yellow” or pale “amber”, especially during the Spring, to reduce attraction of any night-swarming termites near your house.



TERMITES...

More than 365,000 homes in the U.S. are involved in a fire each year. More than 600,000 U.S. homes suffer termite damage totaling over 1.5 billion dollars annually. This is more than the annual damage caused by all fires, storms and earthquakes combined. More than 2 million homes need termite treatment each year. Homeowner’s insurance may cover losses from fires, floods and earthquakes, but it is almost impossible to get insurance against termites.

Finding out that your home has termites scares most homeowners. Typically you can’t see or hear them, and

often only a trained inspector can detect an infestation. Treatment by a homeowner to control termites is virtually impossible. Specialized knowledge and equipment are needed for effective control.

A trained termite control specialist can provide protection from termite infestation. Termites are found in almost every state as well as Mexico and Canada. They can eat wood, paper, books, cardboard boxes or furniture. In buildings with steel framing and masonry walls, termites can destroy wooden doors, window frames, support beams, cabinets or shelving.

How Termites Live

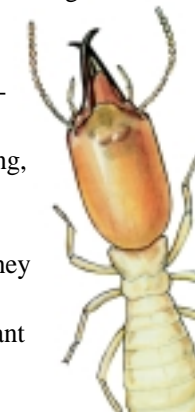
Although there are more than 2,000 species of termites, the Eastern and Western Subterranean Termites are by far the most common, widest distributed and most damaging in the U.S. The following description of biology refers to these two closely-related species.

Termites eat cellulose, a complex chemical in plant cell walls, and they are very important in the natural decomposition of fallen trees and other plant products. Subterranean termites build their colonies in the soil or in trees or poles, and rely mainly on the soil for moisture.

A subterranean colony may have 60,000 to 1.5 million termites, including several “castes,” each with distinct func-

tions and behaviors. These include reproductives (queen, king, and winged swarmer), soldiers and workers.

Workers are small (0.1-0.25 in. long), creamy-white insects. Soldiers are larger (0.2-0.4 in. long), about 1/20th as numerous as workers, and have a large, dark head, with long, strong, sharp-pointed jaws which they use to attack intruders. Property owners seldom see workers or soldiers, but in the spring or fall they may see swarming “winged reproductives,” which can easily be confused with a winged ant unless you look closely.



SWARMING CAN SPREAD TERMITES QUICKLY

After a termite colony reaches a certain population level, usually more than 10,000 for north temperate subterranean species, winged (alate) reproductive “swarmers” develop and leave the colony in a “swarm” (a mixed group of roughly 50% males and 50% females) which leave the nest at the same time, in a 5-45 minute period. This is usually triggered by a rain, in the spring (warming temperatures and lengthening days), and usually around dusk or dawn. Large colonies may release several “pulses” of swarmers over two or more days when conditions are right.

Swarmers fly upward at first and may be attracted to light. After landing, a female breaks off her wings, raises her abdomen tip and emits a pheromone to attract males of her species. If a suitable male finds her, they touch each other and he breaks off his wings. The pair “runs in tandem” for a short time, then seeks a suitable piece of wood in which to begin a nest. When their first brood takes over colony maintenance and food gathering, the queen reverts to only laying eggs. The pair is mated for life. A queen can lay 1,000 eggs per day by her fourth year of life. If either the king or queen dies, other colony members can change into reproductives and replace the lost member of the pair.

HOW TERMITES GET INTO YOUR HOUSE

Subterranean termites live mainly in the ground and search “forage” for wood (food) farther and farther from the center of their colony area as their numbers grow. Foragers may make underground tunnels or above-ground “shelter tubes” of mud, feces and debris which are used to search for new food sources and to connect their feeding sites to the soil. They can enter a building without direct wood contact with the soil through such tubes. They can enter buildings through cracks, expansion joints, foam insulation below ground, hollow bricks or concrete blocks, or through spaces around plumbing through openings as narrow as 1/32nd of an inch. Any building, whether constructed with a slab, basement or crawl space foundation, can be infested by termites.

In certain areas of the country, you may encounter different types of termites such as Formosan, damp-wood or drywood termites. If your home is infested with one of these termites, it may require a different or more extensive treatment(s) including wood treatment or fumigation.

How to Tell Termites From Winged Ants

All termites have a “thick waist” where their abdomen is joined to their middle body region (thorax); but all ants have a “pinched-in-waist” at that point.

All termites’ antennae look like “strings of beads;” but all ants have “elbowed” antennae.

Termite swarmers have two pairs of long, narrow wings with very few clearly visible veins, and both the front and back pair are nearly equal in size and length. Winged ants have two pairs of wings with several distinct cross veins, shaped like long triangles, with the back pair much shorter than the front pair.



Thorough inspection by a termite specialist is the first and most important step in protecting your property. “Experienced” eyes can locate specific areas in your structure where a termite attack is most likely. Inspectors may use special tools such as moisture meters, sound amplifiers or trained dogs. If a termite infestation is found, the specialist can design a treatment plan for your property to control a current infestation or establish a chemical barrier or baiting system around the structure to take care of future termite infestations.

Physical barriers such as a fine stainless steel mesh, chemically impregnated plastic film or specific-sized basaltic sand layer can effectively prevent subterranean termite infestations.

New baiting techniques offer technicians and property owners more options. At least four different chemical and one biological bait are available. These systems are still new but definitely depend on careful monitoring by trained and experienced experts in order to be effective.

Detecting and Controlling Termites is a Job For a Professional

HAPPY GROUNDHOG DAY: SPRING PESTS ARE ON THE WAY

Springtime is a time for awakening. Flowers bloom, trees bud, and pests are on the move. Their long winter’s nap is over and it’s time for them to begin their active lives. There are many pests that become more noticeable in early spring including vertebrates such as groundhogs, skunks, moles; as well as carpenter bees, cluster flies, ladybird beetles, and ants. Mammals have been spending the winter months in deep burrows; and many of the insect pests have been hiding in your home. Some are just a nuisance while others can cause serious damage. Here are a few to be on the lookout for.

Groundhogs

Whether you call it a groundhog, a woodchuck or a whistlepig, the result is all the same. Groundhogs are found primarily in the eastern U.S. while their counterparts, the yellow-lined marmot and other species, live in the west. The natural habitat of groundhogs includes fields and wooded areas. But humans compete for much of the same habitat. It’s not unusual to find them burrowing along railroad embankments, ditch banks, roadsides, fencerow, and beneath many types of buildings, where they can cause serious undermining. Control may include exclusion by using fencing or wire (although they may burrow beneath), trapping and relocating, or even gassing.

Skunks

Known primarily for its scent, the skunk can be a serious pest of home and garden. They are omnivorous and feed on a number of things including grubs, small rodents, snakes, frogs, fruit, berries, mushrooms, bird eggs and even garbage. Active at night, they may go unnoticed until they have a confrontation with another animal and leave their telltale odor behind.

Controlling skunks can be a very difficult job because of the risk of being sprayed. You can try to exclude them but they are climbers and diggers so they can gain entry over or under fences. Trapping is risky and is best left to a professional.

Carpenter Bees

Having spent the winter sealed up in their chamber, the adult carpenter bee will chew its way out and look for members of the opposite sex. Males, though stingless, fly aggressively and feign attack. Once mating occurs, the female will either use the old chamber (a long half-inch wide tunnel in the wood of

railings, siding, outdoor furniture, fences, etc) or chew a new half-inch round one and begin to lay eggs.

The most effective control is to puff a dust formulation of an insecticide into the entrance holes. Newly matured bees will emerge through the openings and contact the dust there. In the fall, the holes can be filled and the entire wood surface painted or varnished.

Cluster Flies

Like carpenter bees, cluster flies overwinter as adults, emerging in the spring to mate. Though they cause no direct damage, in late summer or early fall, as days shorten and the weather cools, cluster flies often enter structures beneath siding, in soffits, vents, etc. to overwinter—sometimes traveling more than a mile to do so. Most find their way into wall voids or attic area where their numbers may reach into the thousands or higher. During late winter, when the sun warms the south side of the house, they may think spring has arrived and you may find a few buzzing around on the back porch or even in a light fixture. In the spring, they will exit the structure in great numbers and can be seen both inside and outside.

While control is generally not necessary, many may not make it back outside and thus die in the voids. These can become food for carpet beetles and mice, etc. A professional can help you discover how they gain entry and provide treatment in the early fall.

Lady Beetles

Though one of the most beloved insects of all, the lady beetle, like cluster flies, can be a nuisance. The Asian lady beetle is the most common home invader. Mating occurs in the spring and eggs are laid on plants infested with aphids or scales upon which they feed. Like cluster flies, lady beetles begin to search for a place to overwinter in late summer or early fall. These sites include piles of leaves, debris, dead grass, beneath logs, inside hollow trees or stumps and voids in buildings. They may be found in great numbers in these locations. In the spring, when they are trying to find an exit from the structure, some may find their way into the living quarters and thus be a nuisance.

Control is generally discouraged, although a professional can show you where to seal or screen to prevent entry next fall.

Ants

Over the past few years, ants have risen to the number one spot on the household pest list. They are social insects living

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