

Providing Leadership in Environmental Entomology

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DRYWOOD TERMITES

Not all termites live in underground colonies. Drywood termites live inside wood and do not make contact with soil. They get the moisture they need to live from humid air. For this reason, drywood termites are most common along humid, coastal areas of South Carolina. Due to their hidden nature, they may be in a structure or piece of furniture for a long time before they are detected.

Biology. Drywood termite colonies are much smaller than subterranean termite colonies. A mature colony may only have a few hundred to a few thousand members. It usually takes many years for a colony to have swarmers, the winged form of termites that are future kings and queens of new colonies. Swarmers leave the nest and are the stage of drywood termites that homeowners see most often. If conditions are favorable, a male and female swarmer, the king and queen, will begin a colony in a crack or other opening in wood.



Drywood termite swarmer. Body about 3/16 of an inch with the wings much longer.

Drywood termite colonies develop slowly. After two years, there may be less than 50 workers, the stage that eats wood, and one soldier, the stage that protects the colony. Swarmers are usually not produced until four years or later.

Damage and detection. Infestations are usually confined to a small area and may be found in structural wood, trim, hardwood floors, furniture, or other wood items. These termites can re-infest after producing swarmers, so older structures are more likely to have multiple infestations than newer ones. Unlike subterranean termites, drywood termites eat both across and with the grain of the wood, making clean and smooth galleries. Drywood termites form their galleries up to the surface of the wood, leaving only a thin layer intact.

Drywood termite colonies are sometimes noticed when their droppings or fecal pellets are found around the infested site. These termites make small, temporary openings, “kick-out” holes, from which they push out fecal material. The holes are later resealed. Fecal pellets are about 1/16" long. They may be black, cream colored or a combination, giving them a “salt and pepper” appearance. Fecal pellets are often found in piles like tiny stones. Each tiny pellet has six dented sides but this can only be seen using a magnifying lens.

Three kinds of drywood termites are found in South Carolina - the powderpost or furniture termite, the Southeastern drywood termite, and one with no common name, called *Kalotermes approximatus* (Snyder). The Southeastern drywood termite is the most common species. While there are slight differences in the types of situations in which each of these termites are found, the considerations for control are similar.



Drywood termite fecal pellets on a penny.

Control. The starting point for control is a thorough inspection to determine the extent of the infestation. Often this is best accomplished by a pest management professional. Infestations are often localized and treatment can be limited to those areas. One of the best ways to control a localized infestation is to remove it. For example if an infestation is confined to a door, trim, or piece of furniture, the best course of action would be to remove and destroy the infested wood. If removal is not practical, a localized insecticide treatment may be done by one of two methods. An insecticide can be injected as a dust or liquid formulation into the termite galleries using a drill-and-treat method or applied as a liquid to the surface of the wood. With the later technique, termites would not be eliminated until they moved close to the wood surface where they would contact the insecticide. Proper preparation and application using these techniques are critical. These treatment methods can be done best by a professional.

Freezing temperatures can kill drywood termites, especially in small furniture. If you have access to a large freezer, you might want to consider this control option. Wood subjected to freezing should be

wrapped in plastic. Freeze the item for about two weeks. After removing it from the freezer, leave the item wrapped until it reaches room temperature. This protects the wood from water marks due to condensation as the item warms. Also, handle the item carefully since glue joints are very fragile when frozen. Some pest management professionals may also have a chamber where furniture or other small wooden items can be fumigated.

In situations where spot treatments have failed or in serious infestations where the drywood termite infestation is extensive, whole-structure fumigation may be the best control option. Whole-structure fumigation involves placing a tent over the structure, sealing it tightly, and pumping a gaseous insecticide into it. Fumigation is a very complex and dangerous process. It requires knowledge, skill, and time to complete properly. It is an expensive treatment method, and can only be done by a licensed pest control operator. There are variations on fumigation involving heat or cold treatments. However, most of these techniques are controversial and are not currently available in South Carolina.

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