

# Termites in Virginia: Unseen but Deadly

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The National Pest Management Association (NPMA) has recognized Virginia as one of the top states in the nation for moderate to heavy termite infestation. Termites are cryptobiotic insects meaning they are unseen until their damage is done. They destroy an estimated \$5 billion of wooden structures per year. With extensive damage, homes become uninhabitable and can cost more than \$100,000 to repair. The bad news is that most homeowners' insurance policies do not cover termite damage because it is something that can be controlled or prevented through regular home maintenance. Here are facts about Virginia's termites, indications of infestation, preventive measures to discourage their presence and advice for extermination. The major type of termite indigenous to Virginia is the Eastern Subterranean Termite which is the most prolific type and inflicts the most damage. Termites live in well-

organized colonies of up to one million organisms that have nests approximately 18 to 20 feet (5 to 6 m) underground. They are tiny, without eyes, about the size of a matchhead, and can vary in color from white to dark brown. They have an organized social structure with castes including Workers, Soldiers, Swarms and Reproductives. Workers toil to feed the immatures and Reproductives of the colony. Soldiers ward off predators such as ants and bees. Swarms, when mature, grow long clear wings that allow them to fly away from the colony and find new places to settle. Reproductives are inactive except for producing up to 2,000 eggs per day. The average lifespan of a worker or soldier is 2 to 5 years and a Reproductive can live up to 11 years. In the spring, when colonies become too crowded, the Swarms lead migrations to a new home and sluff off their wings upon arrival.



*Eastern subterranean termite (Reticulitermes flavipes)*

photo: Susan Ellis, Bugwood.org



*Eastern subterranean termite workers & soldiers*

photo: Gary Alpert, Harvard University, Bugwood.org

Termites feed on wood, grass, humus and the manure of herbivores, but their favorite food is cellulose, the major part of plant cell walls commonly found in wood. Cellulose rich food is also found in cardboard, cotton and paper.

Virginia occupies Infestation Probability Zone #2 which shows the state is a moderate to heavy termite infestation zone. Whenever wood touches soil in a warm humid climate, it is likely termite infestation can occur. Common sites include raised garden beds, fences, porches, decks, sheds and other outbuildings. Also, home construction irregularities that result in chronic leaks, excess moisture between walls and the

ground or improper drainage encourage termites to move in and stay. Poor gardening hygiene such as the accumulation of wood debris and paper trash also contributes to the attraction of hungry termites.

There are reliable signs termite infestation has begun. The first are mud tubes which are slender tunnels about the width of a pencil that extend from under the ground to the infected wood structure. The mud tubes are a superhighway for the Workers to move from their home to their food source. There is no other explanation for the appearance of mud tubes except for termites. The second is the presence of a huge pile of discarded clear termite wings, which show the insects have set up a colony to invade new property. A third indicator is the presence of frass, which are tiny pellets from termite droppings. In



photo: Mississippi State University Extension

*Mud tube on foundation wall from termites*

addition, termites can be found in wood that is dry and hollow and in bubbling paint on walls, doors and windows. All it takes is a strong tap on a suspected surface to see if it collapses into a pile of fragments and dust from termite infestation.

As a first line of defense, it is important to manage moisture around wood structures. Repair leaky roofs, gutters and faucets. Move mulch and plants at least two to three feet away from building foundations and limit mulch application to two to three inches (5 to 8 cm) in height. Keep shrubs trimmed to allow optimal air flow to keep soil dry. Do not stack firewood against the house or outbuildings. Clean up wood piles and recycle old cardboard boxes. Turn off outside lights during the spring swarming season to prevent the formation of new colonies. Always use treated wood everywhere for planters, decks, wooden fences and sheds.

Most real estate sale contracts require a Wood Destroying Organism Inspection (termite inspection) before a property can change owners. However, it makes sense to have a termite inspection every two to three years especially if termite damage is suspected or apparent. Hire companies certified by the Virginia Pest Management Association (VPMA) and schedule the inspection for a time when you can be present to watch.

There are home remedies to repel termites including application of termite baits or boric acid, and use of strong-smelling natural sprays such as vinegar, orange oil and neem oil. Given the high probability for extensive damage, this is the time to call in a professional to help with extermination. The most popular and effective treatments include fumigation and heat treatments. Fumigation involves building a tent around the affected structures followed by sprayed application of insecticide inside the tent. Heat treatments involve the application of insecticide heated to a temperature of at least 120 degrees F (50° C), which is lethal to termites.

Since it is highly likely termites will come to call in Virginia, the best strategy is to identify them and implement regular home and garden maintenance practices to keep our homes and gardens safe from their destruction.

#### References

- [Signs of Subterranean Termite Infestation](#), Dini Miller, Virginia Cooperative Extension, Publication 444-50
- [Termites](#), University of Maryland Extension
- [Formosan Subterranean Termite](#), National Invasive Species Information Center (NISIC)