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To: HORT-AGENTS-L@LISTS.IFAS.UFL.EDU
Subject: [HORT-AGENTS-L] Florida Building Code Changes and Termites, by P. G. Koehler

Here is the first of (hopefully) many installments from the urban entomology program at UF. In this article, Dr. Koehler reviews the Florida Building Code changes that affect termite control. It's not his most funny article, but it's very informative. The Code went into effect on March 1, 2002.

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University of Florida Update
by
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Did you know that the new state building code finally took effect on March 1, 2001? This was a long process that started in 1995 when I chaired the Subterranean Termite Treatment Study Committee for the Florida legislature. The committee recommended that the building code be revised to improve the abilities of pest control companies to treat and protect the structure. The new building code includes most of the Termite Protection Code that was pioneered in St. Johns County by Roland Holt. The code is revolutionary, in that it requires builders to do many things to help prevent termite damage to homes. It also requires pest control operators to generate new posting and certificates of treatment. To help you understand the new code, I will go through the provisions by Chapter.

Chapter 1 addresses administration of termite treatments. In Section 104.2.7 it requires weather resistant posting of termiticide applications and specifies the contents of the treatment certificate. It spells out that final approvals or certificate of occupancy can only be issued after all soil applications are made. To comply with this section of the code,

some companies have generated a “Partial Treatment Certification.” This form demonstrates that the horizontal barrier has been applied, but that the builder must notify the pest control company to return to apply the vertical barrier around the perimeter. This partial treatment form is not proof of complete treatment and cannot be used for the building inspector to issue the certificate of occupancy. The pest control company must be called out a second and/or third time to complete the perimeter treatment. The perimeter treatment is usually applied in 2 steps: under sidewalk or driveway slabs adjacent to the building foundation, and to soil next to the foundation after all backfilling is completed. Once the 2-3 step termiticide application is completed, a “Final Treatment Certification” should be posted. This allows the building inspector to issue the certificate of occupancy.

Section 104.2.8 requires a permanent “Notice of Termite Protection” be posted near the water heater or electric panel. The purpose of the sign is to notify the homeowner that the house has been protected, identify the provider, and inform them of the need for reinspection. It also must disclose the warranty that is provided for the homeowner. Most homeowners lose the paperwork provided at the time of sale. They don’t know that their house has been protected by a pest control company and that they have the ability to renew the warranty.

Chapter 14 of the code specifies the exterior wall covering requirements for the house. Section 1403.1.6 requires a 6 inch clearance between final grade and exterior coverings, like stucco, exterior insulating foam systems, wood siding, and other applied finishes. The purpose of this section of the code is to remove hidden termite access. This provides a 6 inch inspection space around the base of the house so termites cannot get behind exterior finishes and destroy the house without being seen. We have found that about 70-80% of termite infestations originate from the building exterior and are completely hidden from view. This section exempts paint or stucco less than 5/8 inch thick that is adhered directly to the masonry sidewall. It also exempts brick masonry. Exterior wall siding must be 4 inches above patio and garage slabs; however, if soil is treated under the adjacent slab, an even elevation is allowed.

Chapter 15 address the roof and roof structures including water discharge. Section 1503.2 requires flashing to prevent moisture from entering the walls through joints and at intersections with the roof or parapet wall penetrations. Section 1503.4.4 requires discharge lines, down-spouts, and sprinkler heads to discharge water at least 1 foot from the structure. Section 1503.4.4 requires gutters on all buildings with eaves less than 6 inches unless there is another roof underneath. This chapter of the building code protects the soil treatment from water dripping directly from the roof, discharge lines, or down-spouts. Water causes the termiticide to break down faster in the soil through a process called hydrolysis. Water can also erode the termiticide treated soil away from the foundation, leaving gaps in treatment. Additionally, water in the soil attracts termites and leads to many failures.

Chapter 18 refers to retaining walls and foundations, and Chapter 26 refers to the use of plastics. The most important part of this chapter is Section 1804.6.2.7.2 that forwards you

eventually to Section 2603.3.1. These sections prohibit the use of foam plastic insulation below grade. There are several exemptions that need to be read very carefully. Basically, the intent of the code is to prevent the use of foam plastic insulation in contact with or below ground. In fact, Section 2603.3.2 states that clearance between earth and foam plastic applied to exterior walls shall not be less than 6 inches. Termites love to tunnel in foam insulation. Once in the insulation, they are protected from temperature changes and dehydration. They are also hidden from view. Some structures with foam insulation infested with termites have proven to be impossible to treat. The code directly addresses these issues.

Another part of Chapter 18 is Section 1816 that provides for soil treatment with termiticides. Termite protection must be provided by any product labeled for preconstruction use as specified in the DACS memorandum of January 31, 2001. The initial soil treatment is done after completion of excavation, back-filling and compaction. It is required that soil disturbed after treatment has to be retreated. Builders often change locations plumbing or other features after the treatment has been applied. This section requires the builder to call back the pest control company to re-apply product to insure complete treatment.

Section 1816 also requires form boards for bath traps to be of non-cellulose material. That way, form boards do not have to be removed and the soil treatment is not disturbed. It also states that a vapor barrier is required after treatment to protect the treated soil from rain. If rainfall occurs before placement, the pest control company must be contacted to retreat the soil. Once the treatment is completed, the Pest Control Company is required to issue a certificate stating "The building has received a complete treatment for the prevention of subterranean termites. Treatment is in accordance with the rules and laws established by the Florida Department of Agriculture and Consumer Services."

Chapters 21 (Masonry), 23 (Wood), and 26 (Plastic) also have important implications for termites. They require that cells in concrete blocks and other voids shall be clean of debris before concrete placement. Preservative treated wood must meet a standard and bear a quality mark. The site must be graded to provide drainage, and all cellulose debris, like grade stakes, forms, vegetation, cardboard, trash, and foreign material must be cleared from the area within 1 foot of the foundation. No burial of trash is allowed within 15 feet of the structure. Also, decks, fences, patios, and planters abutting the sidewall must allow inspection clearance.

The new building code is a tremendous advance for Florida, in that it brings the builders and pest control operators together as partners in providing unsurpassed termite protection for new homeowners. The termite protection provisions in the new code make sense from termite protection standpoint. Florida can thank Steve Dwinell, Roland Holt, and D. R. Sapp for taking the lead in developing the acceptable language in the code. Dina Richman, a Ph.D. student at the University of Florida, was also involved by researching the impact of construction practices on termite infestations. The FPMA should be commended for insuring that the code was passed by the Florida legislature.