Performance of Young Teakwood Treated with Water-Borne Wood Preservatives against Subterranean Termites in Above-Ground Conditions

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Abstract

To improve termite resistance of young teakwood, 13 to 16 year old teakwood specimens from three different plantation sites (Lopburi, Kanchanaburi and Sukhothai provinces) were treated with three chemical water-borne wood preservatives, chromated copper arsenate (CCA), ammoniacal copper quat (ACQ), copper azole (CA-B), and a natural product (wood vinegar) using the soaking method. The durability of treated teakwood specimens and the untreated ones (as a control) against subterranean termites in above-ground condition was investigated by choice test method. This field test was conducted in Saraburi province by using Randomized Complete Block Design. After 6 months exposure, results revealed that the teakwood specimens treated with chemical wood preservatives showed more durability against the attack of subterranean termites than the specimens treated with natural products and the untreated ones, both with no significant difference. The teakwood specimens from Sukhothai and Kanchanaburi provinces showed more durability than those from Lopburi province. The effect of plantation sites, specimen age and exposure period to the subterranean termites were also discussed in this study.

Keywords: young teakwood, water-borne wood preservative, subterranean termite, above-ground conditions