TERMITE RESISTANCE OF POTENTIAL FOREST PLANTATION WOODS IN MALAYSIA

J. K. Grace,

Department of Entomology, University of Hawaii at Manoa, 3050 Maile Way, Honolulu, Hawaii 96822, United States of America

A. H. H. Wong

Forest Research Institute Malaysia (FRIM), Kepong, 52109 Kuala Lumpur, Malaysia

&

C. H. M. Tome

Department of Entomology, University of Hawaii at Manoa, 3050 Maile Way, Honolulu, Hawaii 96822, United States of America

The resistance of selected Malaysian grown woods to attack by aggressive subterranean termites was evaluated in four-week, no-choice laboratory tests with *Coptotermes formosanus* Shiraki (Isoptera: Rhinotermitidae), and in an accelerated four-week, in-ground field test at the Forest Research Institute Malaysia (FRIM). This is part of an on-going effort between FRIM and the University of Hawaii to document the termite resistance of timber species of potential value in plantation forestry in Malaysia. Several of these tree genera also occur in Hawaii, or could potentially be of value as well in forestry efforts in the Hawaiian island. Woods included in the first stage of the project reported here are the heartwood of acacia (*Acacia mangium*), batai (*Albizia falcataria*), casuarina pine (*Casuarina equisetifolia*), sentang (*Azadirachta excelsa*), Malaysian-grown teak (*Tectona grandis*), and sapwood of the susceptible species of rubberwood (*Hevea brasiliensis*). Of these, casuarina pine proved most resistant to termite attack. Malaysian teak and sentang demonstrated somewhat less, but still significant termite resistance in the laboratory evaluations and a high degree of resistance in the field test. Sentang is a relatively pest-free tree of interest for plantation forestry, and was also quite toxic to termites. Acacia, batai and rubberwood were very susceptible to termite attack, and would require protection in the field and treatment of the resulting wood products.

Introduction

A number of tree species are of increasing interest in Malaysia as candidates for increased use and cultivation as plantation species. This subject is also of interest in Hawaii, where declining cultivation of sugar cane and pineapple has opened large blocks of land for alternative crops and forestry. Throughout the tropical