Infestation Patterns of the Coconut Mite, *Eriophyes guerreronis* (Keifer) (Acari: Eriophyidae), on Coconuts and Resulting Yield Loss in Eastern Jamaica

Sharon Angella McDonald

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Forrest W. Ravlin, Chair
Richard D. Fell
Douglas G. Pfeiffer

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by Sharon Angella McDonald
Committee Chairman: F. W. Ravlin
Department of Entomology

Sharon A. McDonald

(ABSTRACT)

Coconut mite populations and levels of damage to 2-, 4- and 10-month old Maypan and Red Malayan Dwarf nuts in Low and High Rainfall Zones of eastern Jamaica were evaluated. Damage due to the coconut mite was assessed by quantifying scarring of the nut surface, size reduction and copra yield. It was found that coconut mite populations were the same in the two rainfall zones but differed between Maypan and Red Malayan Dwarf varieties. More Maypan nuts were infested with coconut mites than Red Malayan Dwarf nuts. More 2-month old Red Malayan Dwarf nuts were attacked than 2-month old Maypan nuts while more 10-month old Maypan nuts were colonized than 10-month old Red Malayan Dwarf nuts. In both varieties, a greater percentage of 4-month old nuts had > 1,000 coconut mites than 2- and 10-month old nuts.

Nuts in the Low Rainfall Zone had greater percentage of coconut mite damage than nuts in the High Rainfall Zone. Damage was more severe on Red Malayan Dwarf than on the Maypan nuts. The water content of Red Malayan Dwarf nuts declined with increased coconut mite damage but no relationship was found between the water content of Maypan nuts and coconut mite damage. Nut size and copra yield declined significantly with increased coconut mite damage. Total copra yield loss was only about 3% in Maypan and 6% in Red Malayan Dwarf nuts because most of the nuts had < 30% surface area damage.

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