TITLE: Elucidation of Semiochemicals for Biorational Management of the West Indian Sugarcane Weevil, *Metamasius hemipterus* (Curculionidae).

SUMMARY: Trapping methodology was developed for the newly introduced (1985) ornamental palm pest, *Metamasius hemipterus sericeus*. This involved the elucidation of male-produced aggregation pheromones (four methyl alcohols and their corresponding ketones) and host kairomones (ethyl esters such as ethyl acetate). Behavioral work was done to determine which of the eight identified pheromones were needed for optimal trapping and it was found that an 8:1 ratio of 4-methyl-5-nonanol:2-methyl-4-heptanol was effective. Using this synthesized pheromone, other bait components and trap design were optimized for Florida conditions. It is now possible to use semiochemical-mediated trapping for monitoring and mass-trapping efforts in palm nurseries.

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