

2010

March

Field Trapping of the Adult Red Stripe Weevil, *Rhynchophorus vulneratus* (Panzer) with an Aggregation Pheromone in a Coconut Ecosystem⁺

A SIVAPRAGASAM*, AHMAD NGALIM, B RAZALI AND MOHD SANI SUKAIMI
Rice and Industrial Crops Center, MARDI, G P O Box 12301, 50774 Kuala Lumpur, Malaysia

Studies were conducted to evaluate a commercially available male produced aggregation pheromone (Ferrugi-on®; 4-methyl-5-nonanol), as a monitoring tool for the red stripe palm weevil (RSPW), Rhynchophorus vulneratus Panzer (Coleoptera: Curculionidae) in the coconut ecosystem. The study on pheromone placement, comparing locating the traps at ground level with aerial trapping showed that the mean weekly weevil capture between the two techniques was not statistically significant ($F: 0.4955$; $P = 0.4930$). However, catches were numerically higher in the ground trap (mean \pm S.D = 3.25 ± 3.77) compared to the aerial trap (mean \pm S.D. = 2.25 ± 1.39). Upon sexing of the weevils, there were more females caught, irrespective of location. The male: female ratio over the trapping period was 8:10 and 7:19 respectively for the aerial and ground traps. Irrespective of sex, trap catches peaked in week 3 in the ground trap whereas the aerial trap peaked a week later. Study on adding sugarcane as a complementary bait showed the combination pheromone + kairomone significantly enhanced trap catches. However sugarcane or water alone, or their combination will not trap any weevil. The field trap data showed weevil catches were obtained almost every week suggesting the perennial presence of weevil. The pheromone traps caught a total of 348 adults. The fluctuation in trap catches was significant, with catches of more than 30 weevils recorded for some traps. The findings suggest aggregation pheromone trapping can be a useful monitoring tool for RSPW in Malaysia.

Keywords: Red stripe weevil, aggregation pheromone, *Rhynchophorus vulneratus*, coconut.

