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Factors affecting the activity of pollinating weevil, *Elaeidobius kamerunicus* Faust. in irrigated oil palm plantations

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An experiment was carried out on a 7 year old oil palm plantation (Tenera hybrid) located at Suryaraopet village, Pedavegi Mandal, West Godavari (Dt.) Andhra Pradesh to find out the influence of weather factors on pollinating weevil, *Elaeidobius kamerunicus* (Curculionidae: Coleoptera). The population of the weevil was less than 10.0 per spikelet during April, May and June 2012 (16 to 25th standard weeks). No weevils were found developing during May 4th week to June 2nd week. During that period the maximum and minimum temperatures reached to more than 35oC and 33oC respectively and relative humidity dropped to less than 55.0 per cent. At the onset of monsoon the temperature dropped down and humidity increased, which caused congenial conditions for the weevil multiplication and development. October, November and December months were found to be ideal for the development of the weevil. The correlation between weevil activity and weather parameters viz., maximum temperature (r=-0.57), minimum temperature (r=-0.78), mean temperature (r=-0.68) and sunshine hours (r=-0.60) were significantly negatively correlated. Relative humidity was significantly and positively correlated (r= 0.73). Rainfall did not have appreciable influence. The weevils were active during 8.30 A.M to 1.30 P.M of the day and the peak was observed during 09.30 AM to 11.30 A.M. Among the pesticides sprayed at recommended doses against insect pest control fipronil, acetamiprid, thiamethoxam, monocrotophos, L-cyhalothrin, cypermethrin and deltamethrin caused negative impact on population growth and development. *Bacillus thuringiensis* strains HD-1 and HD-7 were found to be safer. Ant species *Monomorium pharaonsis* (Formicidae: Hymenoptera) and a reduviid bug, *Sycanus* sp were associated with spent male inflorescences and found feeding on developing grubs and pupae of pollinating weevil. The occurrence of biotic factors especially during summer months could cause severe setback on efficiency and development of pollinating weevil coupled with abiotic factors. This information is useful for designing plant protection strategies and to conserve the pollinators in irrigated oil palm gardens.

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