

REARING OF RHYNCHOPHORUS FERRUGINEUS IN LABORATORY AND FIELD CONDITIONS FOR CARRYING OUT VARIOUS EFFICACY STUDIES USING EPNs

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Abstract

Methods for rearing of red palm weevil (RPW) *Rhynchophorus ferrugineus* (Olivier) in laboratory and field conditions were developed. Three mediums were tested for egg laying viz., cotton wool having 20 % honey solution, apple and sugarcane pieces. Cotton wool medium had highest numbers of laid eggs 230 ± 1.0 . To observe percentage of hatching, four mediums were prepared viz., Petri dish lined with moistened filter paper, cotton wools with 20 % honey solution, apple and sugarcane pieces. The percent hatchability found in cotton wools with honey solution (83.0 ± 2.2) and Petri dishes with moist filter paper (79.2 ± 1.9) were more or less similar compared to apple pieces (58.5 ± 2.2) and sugarcane pieces (43.2 ± 2.3). Larval growth was best observed on cotton wools having 60 % honey solution i.e., $92.2 \% \pm 1.5 - 80.0 \% \pm 1.4$. Sugarcane stem was found to be the best medium for the development of all larval stages to pupa. RPW was also reared on sugarcane in field condition to compare their developmental stages from lab conditions which showed significant results. Eggs and newly hatched larvae were transferred in stem. After 12 weeks eggs reached up to fifth to sixth larvae, while newly hatched larvae reached up to seventh to eighth larval stage.