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EFFECT OF FOOD PLANTS ON THE GROWTH AND DEVELOPMENT OF SMALL RICE GRASSHOPPER, *OXYA FUSCOVITTATA* (MARSCHALL)

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ABSTRACT

Investigations on the effect of food plants on the growth and development of the small rice grasshopper, Oxya fuscovittata (Marschall) were carried out over two kharif (monsoon) crop seasons (2008 and 2009). Growth and development of O. fuscovittata was best on Oryza sativa L. ranking first followed by Cyperus rotundus L. ranking second; resultantly, the development period on O. sativa, manifested by hopper duration, was the lowest and survival was 100 per cent; consequently, the growth index was the highest (2.87 and 2.85) during both years (2008-09 and 2009-10). The plants of Graminae (Poaceae) were the more preferred food plants having secured ranks from I to VII and the developmental period ranged from 34.79 to 39.98 days. The host Glycine max (ranking VIII), a dicot plant was least preferred by the grasshopper and the hoppers took 46.16 days to complete their development. The food utilization indices, efficiency of conversion of ingested food (ECI), approximate digestibility (AD) and efficiency of conversion of digested food into body substances (ECD) were the highest when the grasshopper (O. fuscovittata) was fed on O. sativa.

KEYWORDS: Acrididae, Hopper Survival, Gowth Index, Food Utilization, Oryza Sativa L

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