THE EMBRYONIC DEVELOPMENT OF NEPHOTETTIX VIRESCENS (HOMOPTERA: CICADELLIDAE)

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The green leafhopper Nephotettix virescens (Distant) has recently become a major pest of the rice crop in Sri Lanka and other South-East Asian countries due to their ability to transmit virus diseases. Although other aspects of the biology of N. virescens have been described (Inoue 1986). no study has been carried out on the external morphology of the embryo of N. virescens. The present paper describes for the first time the external morphology of the various stages of embryo of N. virescens.

The culture of N. virescens used in this study was collected from the rice fields at Arukalmadam in Jaffna and reared on rice variety Bg94-1, at the University of Jaffna, in laboratory conditions of 28-32'C temperature and 40-92% relative humidity. When whole mounts of 1-6 day old eggs were stained with aceto-orcein, protocephalon and protooorm regions were discernible on day 2, slight segmentation of body segments and eye spots on day 3, thoracic legs on day 4 and mouthparts and antennae on day 5. The chorion assumed the shape of the embryo on day 6.

Similarities in development were noted with the brown planthopper Nilaparvata lugens (Stal) from Sri Lanka (Rajendram and Selvadurai 1987).

References:

Inoue, H. 1986 Bull. Kyushu Agric. Expt. Stn. 26(2):149-235
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