Abstract

This study aimed to detail the temporal and morphological parameters of the immature stages of Spodoptera albula (Walker 1857) under controlled conditions (25 ± 1°C, 70 ± 10% RH and 14 hour photophase) and to gather information about their larval host plants. For this purpose, a new rearing method and artificial diet was employed and validated. The viability of the egg, larval, pupal and pre-pupal stages was 94.54, 97.33, 93.84 and 92.34%, respectively. The average duration of the egg, larval, pupal and pre-pupal stages was 4.14, 16.37, 1.69, and 9.34 days, respectively. During the larval stage, 80.85% of females and 93.99% of males passed through six and remaining through seven instars, with significant larval protandry. The larvae that developed through six and seven instars exhibited a mean growth rate of 1.58 and 1.48, respectively. Fifty five host plant species belonging to 29 families are listed. The female pupae were significantly larger, exhibiting protogyny. Both the rearing methods as well as the larval diet proved adequate, providing more detailed observations of the biological cycle, especially the larval stage, and resulting in an overall survival of almost 80%.

Keywords

Annual crop pest, armyworm, artificial diet, development, life cycle.