

# Biology, feeding potential, standardization of mass production techniques and impact study of *Dipha aphidivora* Meyrick

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## ABSTRACT

Experiments were conducted on the biology, feeding potential and standardization of the mass production of *Dipha aphidivora* Meyrick predator on sugarcane woolly aphid, *Ceratovacuna lanigera* Zehntner during 2005-2007, at Agricultural Research Station (ARS), Honnavile, Shimoga (district), Karnataka, India. The duration of the first instar was 2.5 to 3.5 days (average  $2.95 \pm 0.90$  days). The average duration of second, third, fourth and fifth instar, pupal period, adult female and male moth lasted for  $4.57 \pm 1.33$ ,  $8.30 \pm 1.11$ ,  $11.37 \pm 2.96$  and  $6.10 \pm 0.77$  days,  $8.50 \pm 2.15$  days,  $4.5 \pm 0.50$  days,  $1.5 \pm 0.30$  days, respectively and the total larval period lasted for 24.5 to 39.5 days. The daily consumption rate by *D. aphidivora* was 30.8 aphids per day. *D. aphidivora* or aphid multiplied faster on 7-month-old crop than 5, 6 and 8 month old crop. At the rate of 50 number of *D. aphidivora* pupae release, highest populations of 4230 per shade net *D. aphidivora* were harvested. Highest populations of *D. aphidivora* were harvested when the shade nets were irrigated once in two days with the population of 4123 *D. aphidivora* per shade net than irrigated once in week with the population of 1490 *D. aphidivora* per shade net. During the experiment, average temperature was 28°C and relative humidity was 78 per cent.

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