Abstract:

The objective of the study was to investigate the survival of Chrysoperla carnea Stephens first instar larvae in the absence of its natural prey and its compatibility with the parasitoid Aphidius matricariae Hall in controlling aphids. C. carnea larvae survived 15 days longer and gained weight on Chinese cabbage leaves. Larvae fed for 8, 10 and 12 days on cabbage leaves produced normal adults after resumption of natural prey food. There were significant (P= 0.001) differences in the developmental period, after the resumption of feeding with natural prey food, between the larvae allowed first to feed for different periods of time on Chinese cabbage leaves. This indicates that the predator can be released before the buildup of the pests in a biological control programme. Development and fecundity of C. carnea were much affected when the larvae were fed on aphids parasitized by A. matricariae. C. carnea and A. matricariae cannot be released together to control Myzus persicae Sulzer, because each one affects the other. C. carnea larvae fed on A. matricariae adults and parasitized aphids had adults with reduced fecundity. However, these two biological agents can be used separately to control different densities of aphid populations.