# Study of behavior of Mexican beetle, *Zygogramma bicolorata* Pallister

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Behaviour of larvae as well as adults of Mexican beetle, *Zygogramma bicolorata* Pallister studied in laboratory revealed that the females deposited their eggs either singly or in clusters mostly on under surface of leaves of *Parthenium hysterophorus* L. However, oviposition was also observed on upper surface of leaves, occasionally on stems, leaf petioles and even flower buds. In past similar observation has been made by Aherkar *et al*. (1992) and Jayanth and Bali (1993). The newly hatched larvae initially feed on the leaf area adjoining to the oviposition site and then migrated to the terminal and axillary buds. Later on the larvae moved onto the leaf blades as they grew. Younger larvae preferred to feed on tender leaves, whereas older larvae on matured leaves. The younger larva starts feeding from the leaf margin and moves inwards. Full-grown larvae frequently bend their abdominal tip during resting time. Similar behaviour was recorded by Jayanth and Bali (1993).

Adults hibernate, whereas pupae underwent diapause within the soil from the month of November. The mating process lasted for about 4 to 5 hours. This behaviour corroborates with the report of Manjunath (2010). The beetles were capable of repeated mating during their life-span. The females mate with males at least for 3 to 4 times during their pre-oviposition period. After approaching the female, the male beetle climbs and rests on back of the female. Further, it was also observed that a majority of the eggs were laid during third to fifth week of oviposition period. This observation is slightly deviates from the reports of Jayanth and Bali (1993), who reported that the egg laying span between the $7^{th}$ and $15^{th}$ week with a peak during $9^{th}$ week. This variation might be due to differences in the longevity of females, studied in different ecological conditions. Adults as well as larvae preferred hiding in dark places and always tried to avoid light source. The beetles generally preferred to feed from the edges of the parthenium leaves especially from inner curve of leaves. Feeding portion was found to be in half circle. Further, it was also observed that both the larvae and beetles normally produce black colored excreta, but

when disturbed, they produced creamy white coloured thick fluid from their anus. Perhaps this may be one kind of defensive mechanism present in the insect.

**References:**

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