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STUDIES ON INCUBATION PERIOD OF EGGS OF FRUIT FLY *BACTROCERA ZONATA* ON MANGO

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***Abstract*:** Incubation period varied from 1 to 2.6 days (Av.1.58 ± 0.43 days) during the course of study at an average temperature of 28.60 ± 2.39 ^{0}C and at average relative humidity of 76.60 ± 4.88 per cent.

Index terms - *Bactrocera zonata*, *Mangifera indica*, Incubation

INTRODUCTION

Mango (*Mangifera indica*) occupies a pride place amongst fruits grown in the country. The mango which belongs to family Anacardiaceae is an important tropical and sub-tropical fruit crop. It is grown in India for more than 4000 years (Candolle, 1904). It can be grown in almost all part of country except in temperate zone. Among the fruits of universal importance, mango is one of the top, because if it's sweet fragrance, attractive colour, high palatability, taste and quality being rich in sugar, Vitamins (Vitamin –A and Vitamin-C) and minerals. It is rightly referred as "KING OF FRUITS".

Fruit fly is an important pest of mango belongs to family Tephritidae and order Diptera. These are commonly called "Fruit fly" due to their close association with fruits. Kapoor (1970) listed 128 species of fruit flies and out of these, eight species are found infesting mango fruit in India. These species are *Bactrocera zonata* (Saunders), *Bactrocera dorsalis* Hendel, *Bactrocera correctus* (Bezzi), *Bactrocera diversa* (Coquillet), *Bactrocera hageni* De majiere, Bactrocera cucurbitae (Coq.), *Dacus incises* Walker and *Dacus tau* (Walker).

The adult female fruit flies insert the ovipositor inside the fruits and eggs are deposited in clusters. Dark puncture caused due to the oviposition. Maggots on hatching, feed on the pulp and brown patches appear on the fruit surface. Looking to the apparent importance of the pest the investigation was carried out to study incubation period of eggs of fruit fly *Bactrocera zonata* on mango**.**

REVIEW OF LITERATURE

Incubation period of *D. zonatus* was ranging from 2-4 days in May-June as reported by Atwal (1976) whereas, the incubation period of *B. zonata* varied from 3-4 days (Butani,1979; Butani and Srivastava,1999).According to Rana *et al*.(1992), the incubation period of the eggs of B. zonata varied from 1-4 days at an average temperature of 28 ± 2 ^{o}C on guava at Haryana, while it was 1-2 days as per the report of Kapoor (2000).

MATERIALS AND METHODOLOGY

For the study of incubation period and hatching percentage of eggs, the mango slice was kept in the Petri dish (Diameter 10 cm: Height 2 cm) which contains the cotton soaked with water. Eggs were kept in mango slice by making a smack holes with the help of sharp pointer and observe daily in the morning and evening till hatching. Mango slices changed in every morning by keeping fresh one and average incubation period was calculated.

RESULTS AND DISCUSSION

Incubation period varied from 1 to 2.6 days (Av.1.58 ± 0.43 days) during the course of study at an average temperature of 28.60 ± 2.39 ^{0}C and at average relative humidity of 76.60 ± 4.88 per cent .More of less similar observations were also reported by Atwal (1996), Rana et. al. (1992) and Kapoor (2000).

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