

**Life table and demographic parameters of bactrocera dorsalis reared on mango
(Mangifera indica L.)**

ABSTRACT

Survivorship from egg to adult emergence and fecundity from three cohorts of Oriental fruit fly, *Bactrocera dorsalis* eggs on mango (*Mangifera indica* L.) were studied under laboratory conditions (28 ± 2 °C, 70-80% RH and 12:12h photoperiod). The life table showed that the survivorship of *B. dorsalis* falls in Type III with about 22.33% of the eggs successfully reached adult stage. The highest mortality recorded was in the 1st instar larvae (48.59%) with k -value of 0.29 indicated that is the key factor regulating the population size of *B. dorsalis*. The sex ratio (proportion of female to male) was 1.09:1. The maximum life span of female was 50 days and the trend of oviposition showed a peak at about the 26th day of female life span. Age specific fecundity (m_x) showed the earliest egg laying on day 35 and the last female died on day 69. The female laid on average 410.0 ± 61.22 eggs. The intrinsic rate of natural increase (r_m) was 0.06 per female per day with mean generation time (T_c) of 46.39 days. The net reproductive rate (R_o) was 13.68 female offspring per female and the population of doubling time occurred within 12.38 days. This showed that the population of *B. dorsalis* has rapid buildup in short period of time.

Keyword: *Bactrocera dorsalis*; Fruit fly; Artificial diet; Life table