Indian Journal of Ecology (2015) 42(2): 564-566

Manuscript Number: 2126
NAAS Rating: 4.47

Studies on Food Consumption and Utilization Behaviour in Susceptible and Resistant Diamondback Moth, *Plutella xylostella* (Linnaeus)

Anureet Kaur Chandi
Department of Entomology, Punjab Agricultural University, Ludhiana-141 004, India
**E mail: anureetchandi@pau.edu*

***Abstract*:** Various consumption and utilization indices i.e. relative consumption rate (RCR), relative growth rate (RGR), efficiency of conversion of ingested food to body substance (ECI), efficiency of conversion of digested food to body substance (ECD) and approximate digestibility (AD) were determined. The resistant *P. xylostella* larvae differed from the susceptible ones as regards fresh larval weight, fresh weight of food eaten and weight of faeces. The mean larval fresh weight of resistant larvae was significantly higher (1.21 mg) than that of susceptible larvae (1.07 mg); fresh weight of food eaten was significantly higher (17.84 mg) for resistant larvae than the susceptible larvae (14.42 mg) and also mean weight of faeces of resistant larvae was significantly higher (2.57 mg) than the susceptible ones (2.20 mg). The mean fresh weight gain of resistant larvae (2.79 mg) as well as susceptible larvae (2.76 mg) were at par. Similarly relative consumption rate (RCR) was 3.69 for resistant and 3.38 for susceptible larvae, approximate digestibility (AD) was 85.59 for resistant and 84.7 for susceptible larvae, relative growth rate (RGR) was 0.58 for resistant and 0.65 for susceptible larvae and efficacy of conversion of ingested food to body substance (ECI) i.e. 15.64 for resistant and 19.14 for susceptible larvae; were at par. However, efficiency of conversion of digested food to body substance (ECD) for susceptible larvae (22.59) was significantly higher than the resistant ones (18.20).

***Key Words*:** Food consumption, *Plutella xylostella,* Susceptible, Utilization indices