

Characterization of four *Brassica* crops for development of diamondback moth *Plutella xylostella* (L.) (Lepidoptera: Yponomeutidae)

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ABSTRACT

Development of *Plutella xylostella* was studied on cauliflower, cabbage, broccoli and radish in protected field condition under nylon net cage for two consecutive years. Result revealed that *P. xylostella* preferred to lay maximum eggs on cauliflower followed by cabbage, broccoli and radish. Fecundity was more at beginning but declined gradually with advancing of female age. The highest unhatched eggs were recorded on radish and minimum on cauliflower. Larval mortality was least when *P. xylostella* reared on cauliflower and maximum on radish. Mortality survival ratio for immature stages was highest on radish and lowest on cauliflower. The immature stages of *P. xylostella* were over within 27.45 days on cauliflower and 30.62 days on radish. Thermal constants significantly differed among the host plants during both the years of study. Maximum degree-days 66.66 and 125.00 was required for development of *P. xylostella* on cauliflower and minimum 37.03 and 58.82 on radish during both the cropping seasons, respectively. However, *P. xylostella* required maximum degree days to complete the development of immature stages on broccoli 473.03 and 394.95 degree-days in both cropping years.

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