

## **Effect of host plants on the development of *Helicoverpa armigera* (Hubner) larvae**

*Helicoverpa armigera* is the most important member of the Noctuid genus *Helicoverpa*, which contains pests of wide variety of economically important crops throughout the world. Its highly polyphagous larvae feed extensively on the fruiting structures of their hostplants causing total crop losses in the absence of control methods (Reed and Pauer, 1982).

A comprehensive study on the effects of diet quality on the larval development in *H. armigera* larvae was undertaken. Four natural host plants Okra, Lima bean, Pigeon pea, and Green beans were used to study the effects of diet quality on development of *H. armigera* larvae.

Larvae fed on Pigeon pea and Lima bean had five larval instars before pupation. Larvae fed on Okra and Green bean diet had six larval instars before pupation. Head capsule widths of final instar larvae were similar despite the different instar numbers and appeared to be of a critical size for pupation.

Pupal weights and adult weights of the larvae reared on different diets were similar and pupal duration also not affected by the type of their larval diet.

It could be concluded that even for polyphagous larvae quality of the diet they feed on may affect their development. For pupation they required to reach a certain body size, which determines the success of the future adult. In favorable diets larvae reach that critical body size within a fewer number of larval instars and shorter period while in less favourable diet they undergo additional larval instar to reach that body size.