

TITLE : Development of *Helicoverpa* population dynamics modelReview of Aims.

To develop, validate and implement a regional model of *Helicoverpa* population dynamics which considers the abundance, movement, oviposition, development and mortality of *H.armigera* and *H.punctigera* on all major hosts within a given region. The purpose is to provide an interactive simulation model which can predict the regional dynamics of *Helicoverpa* populations in response to climatic, biotic, and agronomic conditions.

Four main uses were envisaged:

- i) To Make short term predictions of likely egg laying pressures on crops within parts of a region.
- ii) To evaluate the effects of various agronomic practices and area-wide management strategies on the regional abundance of *Helicoverpa*.
- iii) To evaluate the impact of patterns of pesticide usage on resistance in *H.armigera* populations.
- iv) To pinpoint areas for research that are critical for an understanding of *Helicoverpa* dynamics and about which we know little