FINAL REPORT FOR CRC TRAVEL GRANT TO ATTEND 18TH AUSTRALIAN ENTOMOLOGICAL CONFERENCE, PERTH, 1987

Project: Pink-spotted bollworm: dispersal from overwintering sites, role of alternative host plants, life cycle and behaviour in cotton fields.

Officer travelling: Mr P. W. Walker

Project supervisor: Dr V. E. Harris/ Prof. H.E.H. Paterson

Reasons for travel: To attend the 18th Australian Entomological Society Conference in Perth to present current results on the biology and ecology of *Pectinophora scutigera*.

Summary:

The following paper was presented:

Title: Effects of moisture and soil type on the emergence of overwintering pink-spotted bollworms (*Pectinophora scutigera* Holdaway)

Author: Paul Walker

Abstract: (published in the conference proceedings)

The effects of moisture and soil type on the emergence of *Pectinophora scutigera* from buried and unburied open cotton bolls were investigated in pot experiments. Boll moisture was a significant factor in controlling larval development hence moth emergence. Development was retarded in dry bolls placed on the soil surface or buried under 5 cm of dry soil but enhanced when either treatment was watered to simulate rainfall. Larvae in watered, buried bolls developed significantly faster than those in watered, unburied bolls due to differences in water absorption and retention.

Soil type significantly affected *P. scutigera* survival with 7.4 and 2.5 times more moths emerging from bolls buried under clay soil than sandy or alluvial soil, respectively.