

A

✓

7/84-6(187) 1481/DAN14L 133

S85/984

RURAL INDUSTRY RESEARCH FUNDS
FINAL REPORT

Authorised
 Body: COTTON RESEARCH COUNCIL

 Project Number: DAN 14L

 Project Title: EVALUATION OF THE INSECTICIDE MANAGEMENT
 STRATEGY FOR RESISTANT HELIOTHIS ARMIGERA -
 NAMOI/GWYDIR

 Field of Research: Entomology Field code: 3.1

 Organisation: Department of Agriculture, NSW

 Address: P O Box K220
 Haymarket 2000

 Project supervisor: Dr E C Wolfe, Regional Director of Research
 Tel: 067-679300
 Dr V Edge, Director of Entomology
 Tel: 02 -6300251

 Research staff: Mr N W Forrester, Special Entomologist
 Agricultural Research Station
 PMB Myall Vale
 Narrabri 2390 Tel: 067-931105

 Administrative contact: Mr G M Mohr, Research Co-ordinator
 Tel: 02 -2175130

Commencement and completion dates: July 1984, June 1987

OBJECTIVES

- * To evaluate the impact of the Insecticide Resistance Management Strategy on pyrethroid and endosulfan resistance levels in Heliothis armigera in the Namoi/Gwydir.
- * To determine the main factors influencing resistance frequency.

BUDGET SUMMARY

1984/85	1985/86	1986/87
36,000	49,000	51,000

RESULTS

A new monitoring technique has been devised which enables individual larvae to be screened for pyrethroid/endosulfan resistance directly from the field without changing their genetic makeup. The technique involves screening larvae, collected as eggs in the field, with a discriminating dose of either fenvalerate or endosulfan. This new technique has proved quite sensitive in detecting even small differences in resistance levels. It has also avoided the long delay and altered genetic makeup associated with the classical F1 bioassay method.