

DAN105C Executive Summary

Plain English Summary

Helicoverpa armigera remains the most important pest species in Australian cotton. In the 1999/2000 cotton-season, transgenic Ingard® cotton accounted for approximately 30% of the cotton planted in Australia. Significant savings in the numbers of insecticide applications in Ingard® crops have reported, particularly early in the growing season. However 70% of the Australian crop is planted to conventional varieties, and relies on foliar applied insecticides for protection against insect pests. Current transgenic cotton varieties still require supplemental control of *Helicoverpa* species later in the cotton season. Control of *Helicoverpa spp.* has traditionally relied on applications of organochlorine, pyrethroid, carbamate and organophosphate insecticides. Overuse of some of these groups has lead to environmental, residue and resistance problems. This project aims to evaluate the effects of resistance on field efficacy of some of the older insecticide groups, as well as to provide an independent assessment of the efficacy of new insecticides for control of *Helicoverpa* species. This information will assist in the update of Insecticide Resistance Management strategies for Australian cotton.