

## Summary

The silverleaf whitefly (SLW), *Bemisia tabaci* B-biotype, was first discovered in Australia in 1994. SLW is a major pest of cotton in many overseas countries and poses a considerable threat to cotton in Australia.

Consequently a monitoring system using surveys has been run over the past two years to:

- Monitor the distribution and abundance of the whitefly,
- Record its hosts, and
- Assess the degree of natural biological control provided by indigenous parasitoids.

SLW was first found at Biloela in July 96; St. George, Goondiwindi and Warra in January 98; St. George irrigation area in April 98 and Emerald and Comet in May 98

Rates of parasitism were variable and in the different areas averaged: Central Highlands 43%, Dawson/Callide 36%, St. George 67%, Goondiwindi 45%, Darling Downs weeds 45%, Darling Downs cotton 72%. The parasitoids belonged to several species of *Encarsia* and *Eretmocerus* spp. and were common in all cotton growing regions.

SLW was found breeding on six different plant species.

Populations of SLW have undergone an incremental increase in distribution and abundance across the cotton growing regions. It would appear that SLW has gained a foothold on weeds in all cotton growing districts. Whether populations build up from here to threaten cotton is unknown.

The relatively slow spread of detectable populations of the SLW in the cotton areas of Queensland may be attributed, at least in part, to the activities of its parasitoids.