CRDC FUNDED CENTRE FOR THE DEVELOPMENT OF NEW BIOPESTICIDES AND SEMIOCHEMICALS (CBS) FOR IPM

AUTHORS Robert Mensah[1] | Robert Spooner-Hart[2] | David Leach[2] | Peter Gregg[3]
ORGANISATIONS [1] Australian Cotton Research Institute, NSW Department of Primary Industries, Narrabri NSW 2390 | [2] School of Science & Health, University of Western Sydney, Penrith NSW 2751 | [3] School of Environmental & Rural Science, University of New England, Armidale NSW 2351

17th australian COTTON conference
Our Fibre, Our Focus, Our Future

Prepared by CRDC on behalf of the 17th Australian Cotton Conference
www.australiancotton conference.com.au

Further Information
Robert Mensah
02 67991525
robert.mensah@
dpi.nsw.gov.au
www.industry.nsw.gov.au

NSW GOVERNMENT Department of Primary Industries

Australian Government
Cotton Research and Development Corporation

une University of New England

University of Western Sydney

Issue being addressed

Australian cotton farmers have achieved substantial reductions in insecticide use from their adoption of GM technology to control Helicoverpa spp. However they now face problems associated with a wider range of insect pests that were once incidentally controlled, such as green mirid, cotton aphid and white fly. These pests have few insecticide options available for their control, forcing ongoing use of older, broad-spectrum insecticides that are likely to face increased regulatory scrutiny. Reliance on limited insecticide options can also create other problems by destroying beneficial insects and causing pests to become resistant over time. Thus, there is an urgent need to investigate and develop new alternatives such as pesticides derived from natural materials (biopesticides) and chemicals that mediate interactions between organisms (semiochemicals).

Work to date

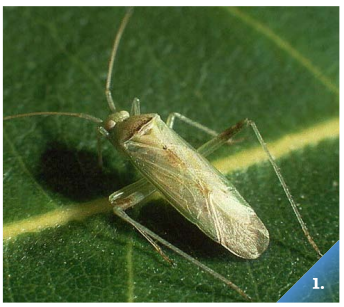
A newly established Centre for Biopesticides and Semiochemicals aims to develop novel IPM products for the Australian cotton industry. The Centre will work with commercial partners to deliver rapid commercialization of its discoveries. It will also conduct training in biopesticides and semiochemicals R&D. Inaugural core Centre partners are the CRDC, NSW DPI, University of Western Sydney and University of New England.

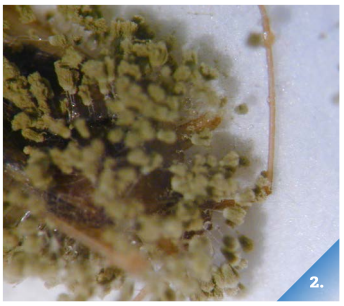
Initial projects under way are:

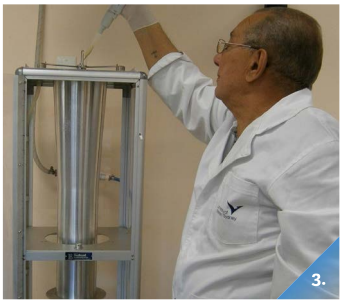
- Fungal biopesticides and semiochemicals for control of pests on cotton and other crops
- Novel insecticides and synergists from endemic and exotic flora
- The evaluation of pheromone-based monitoring for green mirids

The benefits of this research

The CBS and its projects will contribute to improving the sustainability and economic viability of the Australian cotton industry. As well as direct economic benefits, development of new strategies and products based on biopesticides and semiochemicals is likely to prolong the life of existing insecticides and other management strategies by reducing the risk of pests developing resistance to them. It will also train new researchers in this interesting area of plant protection.


1.


2.


3.

1. **HEALTHY** adult green mirid.

2. **GREEN** mirid attacked by entomopathogen.

3. **ASSESSING** efficacy of biopesticides with a Potter Spray Tower.

4. **STRUCTURE** of CBS