

## Foreword

The triumvirate of cotton-based Cooperative Research Centres (CRCs) concluded with the finalisation of the **Cotton Catchment Communities CRC (Cotton CRC)** in June 2012. Eighteen years of significant investment and collaboration have produced an array of valuable outcomes. Importantly, the dividends from this research and development journey will continue for many years to come for the industry and for the catchments and communities in which it operates.

An outstanding feature of the Cotton CRC was the successful integration of the environmental and social programs into the traditional agricultural science disciplines. It is pointless for any agricultural industry to work in isolation from its surrounds, as all are intrinsically connected physically, environmentally and socially to catchments and communities. We will continue to discover more and more ways in which the cotton industry is interconnected and reliant on all that is around it.

Key to a CRC is the collaborative effort of its participants and affiliates, who focus on common goals and take into consideration industry priorities. Industries always face short-term challenges that need to be addressed but longer-term success depends on looking beyond the immediate and understanding the contextual and longer-term factors that can have major impacts in time.

The CRC had five key programs: The Farm, The Catchment, The Community, The Product and The Adoption. There were a number of factors influencing the work to be done in each of these programs:

1. The drying phase in south-east Australia that was causing water supplies to retract was becoming a major issue, putting great pressure on the need for even higher water use efficiencies.
2. Natural resource management beyond simply water was becoming a more critical issue, especially vegetation and biodiversity, with the cotton industry seen as an important driver for the uptake of ecosystem services and catchment management activities.
3. Transgenic cotton varieties had proved a fundamental and beneficial platform for robust Integrated Pest Management (IPM) systems and, with the widespread use of this technology, it was important that it be well managed and preserved.
4. Community issues have always been critical to cotton, given the importance of regional towns as a source of employees, skills and services. In an increasingly urbanised and coastal nation, finding ways to assist communities in cotton regions to build their capacities and attract people was the subject of a lot of debate.
5. Cotton is the largest natural fibre market in the world and has become a major world commodity. While Australia excels in its production, ensuring it remains competitive and continues to attract premium prices was seen as a crucial issue. As well as finding ways to measure the fibre characteristics of Australian cotton to assist spinners, responsible stewardship in production methods through greater use of the industry's Best Management Practice (BMP) program was seen as

an important objective to pursue through research and development.

The Cotton CRC was one of the few CRCs with its headquarters in regional Australia (Narrabri, NSW). It had 12 Participant partners and 30 affiliate organisations as project partners. The CRC was led by its Board with David Anthony (Chairman) and John Herbert (Deputy Chairman) and had two CEOs Guy Roth and Phillip Armytage. The Chief Scientist was Professor Peter Gregg and Chief Operating Officer, was Dr Paula Jones. The program leaders and administration staff played critical roles and are owed a great deal of thanks.

The Cotton CRC greatly appreciated the funding received from the various federal governments and their agencies that have presided over the CRC program through the last 18 years. There was also a very significant industry investment from the Cotton Research and Development Corporation, Cotton Australia, Cotton Seed Distributors, ACGRA and other private companies.

The CRC facilitated the successful graduation of 60 PhDs, two Masters and 15 Honours students. Many of the papers in this special edition are from PhD projects and we hope these students become tomorrow's research leaders.

It is well known there is a time lag between undertaking research and its publication. The Special Editions (Parts 1 & 2) of *Crop and Pasture Science* are a final strategy to record and capture some of the collaborative research undertaken by the Cotton CRC research teams. It is by no means a comprehensive capture of all activities, rather a legacy of some specific activities that build upon other work that has already been published and disseminated.

Part 2 of this Special Edition of *Crop and Pasture Science* will be published next and will include a second set of 12 papers.

We would like to thank all the authors for their contributions, the funding organisations, research institutes, collaborating farmers and businesses. Finally, thank you to the many people who reviewed the papers for the Journal.

**Guy Roth, Peter Gregg and Jane Trindall**  
**October 2013**

The Cotton Catchment Communities CRC was made up from the following Participant Organisations:

- The Australian Cotton Growers Research Association Inc. (ACGRA)
- Cotton Australia Ltd
- Cotton Research and Development Corporation (CRDC)
- Cotton Seed Distributors
- CSIRO
- Department of Agriculture Western Australia
- NSW Department of Primary Industries
- Queensland Department of Primary Industries and Fisheries
- The University of New England
- The University of New South Wales
- The University of Sydney
- The University of Technology Sydney