

The Cotton Catchment Communities CRC started operation on July 1, 2005.  
It funds projects related to cotton production and the river catchments and communities in which the cotton industry operates.

This section brought to you in association with



# COTTON CATCHMENT COMMUNITIES CRC RESEARCH PROJECTS

PROJECT TITLE	RESEARCHER	ORGANISATION
<b>1. Farm Program</b>		
Rhizosphere biological functions	Dr Oliver Knox	CSIRO Ent
Mortality of Helicoverpa in Bollgard II	Dr Sharon Downes	CSIRO Ent
Postgraduate: Is the source of mirids in cotton derived from local dispersal or long distance migration?	James Hereward/Dr Paul De Barro	CSIRO Ent
Ecology of Helicoverpa – transgenic cotton	Dr Geoff Baker	CSIRO Ent
Supporting IPM for future cotton systems	Dr Lewis Wilson	CSIRO PI
Communication strategy North Australia	Geoff Strickland	AG WA
Sustainable IWM (weed) strategies	Graham Charles	NSW DPI
Mirid predation	Dr Mary Whitehouse	CSIRO Ent
The role of IPM Northern Territory	Dr Andrew Davies	NT DPI, F&M
Alternaria leaf spot – Northern Australia	Dr Shamsul Bhuiyan	NT DPI, F&M
Integrated cotton farming system Nth Qld	Dr Paul Grundy	Qld DPI&F
IPM in Northern broadacre farming systems	Dr Melina Miles	Qld DPI&F
Summer weeds in dryland cropping	Dr Steve Walker	Qld DPI&F
Postgraduate: Survival of the soil-borne fungal pathogen <i>T.Basicola</i> in association with cotton and other plants	Jason Moulynox /Dr Lily Perek-Gerk	UNE
Molecular factors Black Root Rot disease	Dr Lily Perek-Gerk	UNE
Tracking <i>H.armigera</i> migration	Dr Kirsten Scott	UQ
Trichogramma incidence	Dr Kirsten Scott	UQ
Postgraduate: Mechanisms underlying the efficacy of petroleum spray oils (POSS) against <i>Aphis gossypii</i> on cotton	Adriana Rodriguez/Dr Gimme Walters	UQ
Weed management strategies for farming systems with herbicide tolerant cotton	Dr Steve Walker	Qld DPI&F
Minimum tillage northern Australia	John Moulden	AG WA
NORpak validation Kununurra	Geoff Strickland	AG WA
Postgraduate: Thresholds for Bt Helicoverpa survivors on Bollgard II	Baoqian Lu/Dr Sharon Downes	UNE/CSIRO Ent
Postgraduate: Weed resistance risk management modelling in glyphosate tolerant cotton	Jeff Werth/Dr Chris Preston	Uni of Ade
Development of weed control thresholds in cotton	Graham Charles	NSW DPI
Postgraduate: Optimising the establishment, persistence and impact of <i>Trichogramma pretiosum</i> in NSW	Christopher Carr/ Assoc.Prof. Nick Reid	UNE
Maximising the efficiency of Bt refuge crops	Dr Geoff Baker	CSIRO Ent
Postgraduate: Ecology of fleabane ( <i>Conyza spp.</i> )	Todd Green/Assoc.Prof.Brian Sindel	UNE
Linking cotton-pathogen molecular	Dr Lily Perek-Gerk	UNE
Postgraduate: Diseases of cotton IX	Chris Anderson/Dr Robert Mensah	NSW DPI
Postgraduate: Genetic factors involved in pathogenicity of <i>Thielaviopsis basicola</i> towards cotton	Getachew Ali/Dr Lily Perek-Gerk	UNE
Soil health R&D review and workshop	Bruce Pyke	CRDC
Management of mirids and stinkbugs in Bollgard II	Dr Moazzem khan	Qld DPI&F
IPM in Bollgard II: Coping with changes in pests and climate	Dr Lewis Wilson	CSIRO PI
Water relations of the cotton plant	Dr James Neilsen	CSIRO PI
Plant and soil factors optimising WUE	Dr James Neilsen	CSIRO PI

PROJECT TITLE	RESEARCHER	ORGANISATION
Field method deep drainage potential	Dr Budiman Minasny	USyd
Postgraduate Chris Vanages	Dr Willem Vervoort	USyd
Postgraduate: The effect of water availability and climate on boll retention and plant nutrition in cotton	Warren Conaty/Professor Bruce Sutton	USyd
Maximising profitability with limited water	Dr Jose Payero	Qld DPI&F
Irrigation scheduling west Kimberley	Geoff Strickland	AG WA
Irrigation monitoring system for Bollgard	Stephen Yeates	CSIRO PI
Quantifying deep drainage	Dr Anthony Ringrose-Voase	CSIRO L&W
New monolayer and evaporation control systems	Dr Erick Schmidt	USQ
NWI: On-farm storages	TBA	Cotton CRC
Oxygation – enhancing water and nutrient use efficiency	Professor David Midmore	CQU
Postgraduate: Optical sensors for monolayer detection	Paul Coop/Assoc.Prof. David Lamb	UNE/CRC IF
Postgraduate: Automation and realtime control of furrow irrigation	Professor Rod Smith	USQ
Postgraduate: Field aspects of multigation – fertigation and oxygation	Jay Dhungel/Professor David Midmore	CQU
Postgraduate: Studies on multigation under controlled conditions	Manouchehr Torabi/Professor David Midmore	CQU
Nutritional constraints in cotton	Dr Ian Rochester	CSIRO PI
Physiological basis for cotton yields	Dr Rose Roche	CSIRO PI
Crop Nutrition Activities	Dr Chris Dowling	
Postgraduate: The Impact of Soil Sodicity on Cotton Cropping Systems	Kylie Dodd/Dr Chris Guppy	UNE
Maintaining a functional soil system	Dr Damien Field	USyd
Postgraduate: Sequestration of carbon below ground in cotton fields by arbuscular mycorrhizal fungi and cotton roots	Leonie Whiffen/Dr Peter McGee	USyd
Measures of soil health	Dr Peter McGee	USyd
Microbial biodiversity for soil health	Dr Jenny Saleeba	USyd
Postgraduate: Diversity of VAM fungi in soil health	Stella Loke/Dr Peter McGee	USyd
Postgraduate: Development of a method to identify genetic variability in cotton's ability to withstand abiotic stress	Nicola Cottee/Dr Daniel Tan	USyd
Postgraduate: Subsoil nutrient management and stratification in cotton/grain rotations	Xiaojuan Wang/Dr Caixan Tang	La Trobe Uni
Effectiveness of foliar nutrition	Dr Lindsay Campbell	USyd
Ord Stage 2 development	John Moulden	AG WA
Postgraduate: Modulation of pre-flowering vegetative biomass by water and nitrogen supply to enhance assimilate supply for high fruit retention BT cotton	Marcelo Paytas/Professor Shu Fukai	UQ
Postgraduate: Getting the best out of gypsum and lime to combat sodicity in the Macquarie and Lachlan valleys	John Bennett/Dr Stephen Cattle	USyd
Postgraduate: Nutrient redistribution within cotton plants	Meredith Errington/Dr Lindsay Campbell	USyd
Postgraduate: Separating snake-oil from valuable organic amendments – improving topsoil physical condition in central and southern NSW cotton-growing valleys	James Quilty/Dr Stephen Cattle	USyd
Postgraduate: Molecular analysis of proteobacterial communities in soil under cotton	Sam Alomari/Dr Jenny Saleeba	USyd
Management of cotton rhizosphere-microbe	Dr Oliver Knox	CSIRO Ent
Improving cotton nutrition	Dr Ian Rochester	CSIRO PI
VIS-NIR-MIR spectral library	Dr Raphael Viscarra Rossel	USyd
In-crop spatial variability	Jonathon Medway	Terrabyte Services
Integrated cotton farming systems – CQ	Dr Richard Sequeira	Qld DPI&F
Optimal production of high retention cotton	Stephen Yeates	CSIRO PI
Integrating agronomic inputs	Dr Michael Bange	CSIRO PI
High yielding irrigated grains Phase I	Tracey Farrell	NSW DPI
High yielding grains Phase II	Tracey Farrell	NSW DPI
High yielding grains Phase III	Verity Gett	NSW DPI

PROJECT TITLE	RESEARCHER	ORGANISATION
BMP Border Rivers	Brendan Griffiths	Griffiths Ag
Masters: Quantifying effects of maize rotation on soil quality and nutrient availability on cotton growth and yield	Alison Devereux/Professor Shu Fukai	UQ
Sustainable cotton in the Burdekin	Dr Paul Grundy	Qld DPI&F
Masters: An assessment and evaluation of current PA tools – commercial broad acre applications to the irrigated and rainfed, cotton and grains industry in Northern NSW and Southern Qld	Brooke Sauer/Dr Chris Guppy	UNE
Maintaining profitability and soil quality in cotton farming systems III	Dr Nilantha Hulugalle	NSW DPI
Managing <i>Helicoverpa</i> spp. semiochemicals	Dr Robert Mensah	NSW DPI
Chemical ecology of insects	Dr Alice Del Socorro	UNE
Behaviour modifying plant extracts	Dr Robert Mensah	NSW DPI
Plant extracts and crude cotton seed oil	Dr Robert Mensah	NSW DPI
Postgraduate: Gene silencing technologies to control <i>Helicoverpa armigera</i>	Derek Collinge/Dr Karl Gordon	CSIRO Ent
New generation scouting tools	Dr Michael Bange	CSIRO PI
IPM Bollgard – Development and evaluation of plant extracts and gossypol for management of <i>Helicoverpa</i> spp, green mirids and aphids on cotton	Dr Robert Mensah	NSW DPI
Improving the efficiency of Bollgard II refuges with semiochemicals	Dr Alice Del Socorro	UNE
<b>2. Catchment Program</b>		
Postgraduate: Development of a model of flood dynamics for water management in the Gwydir wetlands	Sue Powell/Dr Rebecca Letcher	ANU
Capturing our understanding of soil water balance	Dr Mark Silburn	Qld DNR&W
Postgraduate: Optimising river flow management for environmental and economic sustainability	Debbie Burgis/Dr Darren Ryder	UNE
Masters: Efficient water allocation based on probable reservoir inflows and rainfall/streamflow forecasts	Robert Caldwell/Dr Ian Cordery	Uni of NSW
River flow measurements	Dr Bryce Kelly	Uni of Tech, Syd
Postgraduate: Development of a negotiation tool to improve water sharing and environmental flows in semi-arid unregulated rivers	Floris van Ogtrop/Dr Willem Vervoort	USyd
Managing environmental flows: Lower Gwydir	Dr Glenn Wilson	UNE
Riparian condition assessment	Julian Wall	Eco Logical Aus
Postgraduate: Gwydir wetlands – environmental flows, grazing and biodiversity	Peter Berney/Dr Glenn Wilson	UNE
GHD project	Dr Paula Jones	Cotton CRC
Bore water quality project	Dr Paula Jones	Cotton CRC
Surface and groundwater interconnectivity study: Upper Namoi, NSW	Professor Ian Acworth	Uni of NSW
Postgraduate: Robust and sensitive indicators of groundwater health and biodiversity	Kathryn Korbelt/Dr Grant Hose	Uni of Tech, Syd
Groundwater Modelling: Scoping studies	Dr Noel Merrick	Uni of Tech, Syd
Groundwater Modelling: Cox's Creek	Dr Noel Merrick	Uni of Tech, Syd
Postgraduate: Developing stochastic deep drainage surfaces for the Cox's creek catchment	Sarah Bennett/Dr WillemVervoort	USyd
Co-ordinating deep drainage research	DR Willem Vervoort	USyd
Groundwater scoping studies Queensland	Dr Noel Merrick	Uni of Tech, Syd
Postgraduate: Coupled streamflow and groundwater modelling for improved irrigation allocation estimates	Jamal Nejem/Dr Noel Merrick	Uni of Tech, Syd
Postgraduate: Transmission losses in semi-arid rivers, a loss or a gain	Dawit Berhane/Dr Willem Vervoort	USyd
Deep drainage under irrigated cotton- surface and groundwater implications	Dr Des McGarry	Qld DNR&W
NCMA schedule 1.3 information collation	Dr Paula Jones	CottonCRC/Namoi CMA
Postgraduate: Aquatic biodiversity and the ecological value of ring-tank water storages on cotton farms	Susan Lutton/Professor Stuart Bunn	Griffith Uni
Advancing environmental values	Dr Angus Crossan	USyd
Pesticide and nutrient remediation	Dr Angus Crossan	USyd
Irrigation storage design guidelines	Professor Ivan Kennedy	USyd
Development of bioremediation enzymes	Dr Robyn Russell	CSIRO Ent

PROJECT TITLE	RESEARCHER	ORGANISATION
Postgraduate: Catchments scale risk assessment for agrochemicals	Mitchell Burns/Dr Angus Crossan and Professor Ivan Kennedy	USyd
Evaluation and development of herbicide test kits and sustainability indicators	Dr Angus Crossan/Professor Ivan Kennedy	USyd
Postgraduate: Ecologically based pest management for Macquarie region cotton production	David Perovic/Dr Geoff Gurr	Charles Stuart Uni
Postgraduate: Valuation of ecosystem services relevant to cotton production at the catchment and farm scale	Francis Karanja/Asoc.Prof Nick Reid	UNE
Postgraduate: Role of native vegetation in harbouring beneficial insects and reducing insect pest damage in cotton	Ingrid Rencken/ Assoc. Prof Nick Reid	UNE
Masters: Insectivorous bats, irrigated cotton, indigenous	Leah MacKinnon/Dr David Goldney	Charles Stuart Uni
Healthy cotton catchments	Dr Alan House	CSIRO SE
Postgraduate: Benefits of establishing and managing native vegetation on cotton farms in the Namoi catchments	Rhiannon Smith/ Assoc.Prof. Nick Reid	UNE
Capturing the ecosystem service	Dr Felix Bianchi	CSIRO Ent
Identifying habitat for birds	Evan Cleland	Birds Australia
Postgraduate: Healthy cotton catchments	Oliver Robertson/Dr Yvonne Buckley	UQ
Managing invasive native scrub	Megan Good/A/P Nick Reid	UNE
Summer Scholarship: Michael Nelson	Dr Inakwu Odeh	
NCMA Schedule 1.4 On-ground incentive projects	Stacey Spanswick	Namoi CMA
Postgraduate: Minimising the economic impact of water market reform for the NSW cotton industry	Lisa Yu-Ting Lee/Dr Tihomir Ancev	USyd
Birds on cotton farms	Greg Kauter	
NSW landscape sponsorship	Peter Dawson	
The 2008 biodiversity calendar	Jane Macfarlane	Namoi CMA
<b>3. Community Program</b>		
Climate change in cotton communities	Guy Roth	Cotton CRC
Socio-economic impact	Roy Powell	
Community program integration	Brendan Doyle	UNE
Wee Waa drought survey 2008	Dr Paula Jones	Cotton CRC
Environmental and socioeconomic sustainability	Dr Iain Davidson	UNE
Young professionals pilot	Dr Paula Jones	Cotton CRC
Innovative regional businesses and options for economic growth in cotton communities	Dr Tony Sorensen	UNE
2009 cotton calendar	Jane Macfarlane	Namoi CMA
Coordination of NRM Governance	Darbas, Toni	
Postgraduate: Inclusive engagement and development – an indigenous perspective of community, business and sustainable development	Donna Moodie/Professor Helen Ross	UQ
School based traineeship	Helen Dugdale	AES
Extending information to the non-scientific community	Helen Dugdale	Wincott
Baseline socio-economic indicators	Dr Richard Stayner	UNE
Promoting science and ag	Trudy Staines	Cotton CRC
Write a reader program	Trudy Staines	Cotton CRC/BR&G CMA
My River Darling 2005	Sue Lennox	Oz GREEN
Science in a box	Bryan Pennington	Primary Science Matters
Go agro	Rachel McDowall	CHCCA
Rotary science challenge	Letitia Cross	Cotton CRC
High schools	Letitia Cross	Cotton CRC
Usyd yearly prize	Dr Lindsay Campbell	USyd
<b>4. Product Program</b>		
Commerical preparation of SiroMat	Dr Stuart Gordon	CSIRO T&FT
Support and extension of SiroMat (Generation 1)	Dr StuartGordon	CSIRO T&FT
Cottonspec – Predicting yarn performance from cotton fibre quality parameters	Dr Stuart Gordon	CSIRO T&FT

PROJECT TITLE	RESEARCHER	ORGANISATION
Linking farming systems to fibre and textile	Dr Robert Long	CSIRO T&FT
Crop management for improved fibre quality	Dr Michael Bange	CSIRO PI
Postgraduate: Identification of the glass transition	Dr Mikey Huson	CSIRO T&FT
Scoping Study: New ginning technology	Dr Stuart Gordon	CSIRO T&FT
New ginning technology for Australian cotton: Part 1 (Modified lint cleaner)	Dr Stuart Gordon	CSIRO T&FT
New ginning technology for Australian cotton: Part II (Moisture and contamination)	Dr Stuart Gordon	CSIRO T&FT
Improving ginning efficiency and fibre quality of long staple Australian cotton	Kevin Bagshaw	CSIRO T&FT
Fibre to Fabric Training	Rene van der Sluijs	CSIRO T&FT
Post harvest training	Rene van der Sluijs	CSIRO T&FT
Standardisation of Classing	Rene van der Sluijs	CSIRO T&FT
Measuring contamination in Australian cotton	Rene van der Sluijs	CSIRO T&FT
Aquaculture – QLD component (Phase 1)	Dr Michael Burke	CSIRO PI
Aquaculture NSW	Dr Stuart Rowland	NSW DPI
Postgraduate: Silver perch aquaculture on cotton farms	David Foley/Dr Stuart Rowland	NSW DPI
<b>5. Adoption Program</b>		
Cotton training coordinator	Mark Hickman	Qld DPI&F
Effective irrigation knowledge	Peter Smith	NSW DPI
Ag15 NRM extension	Geoff McIntyre	Qld DPI&F
RWUE III	Graham Harris	Qld DPI&F
Integrated sustainability initiative	Bec Smith	BRF&F
Delivering increased adoption of BMP in WUE	Chaseley Ross	Cotton Aus
DAFF industry partnership program	Letitia Cross/Rob Welsh	NSW DPI
Casual support Lower Namoi extension	Tracey Farrell	NSW DPI
Spray application training	Bruce Pyke	CRDC
WUE siphon-less irrigation systems	Emma Carrigan	Qld DPI&F
Advancing water management in NSW	Rod Jackson	NSW DPI
Healthy soils extension	John Friend	NSW DPI
NCMA Schedule 1.1 Community Support Officer	Stacey Spanswick	Namoi CMA
Qld Extension Darling Downs/Border Rivers	Geoff McIntyre	Qld DPI&F
New South Wales regional extension	Sally Ceeney	NSW DPI
Regional extension St George and Dirranbandi	Dallas King	Balonne Agri
Delivering regional extension in Central Queensland farming systems	Susan Maas	Qld DPI&F
Technology Resource Centre	David Larsen	NSW DPI
Linking research, extension and BMP – decision aid development	Loretta Clancy	CSIRO PI
Cotton management support systems	Dr Michael Bange	CSIRO PI
Smart approaches to cotton irrigation	Dirk Richards	CSIRO PI
Opportunities for linking research, decision support and BMP	Dr Michael Bange	CSIRO PI
Seepage workshop	Dirk Richards	CSIRO PI
Ring tank guidelines	Guy Roth	Cotton CRC
Water Wise – Exhibition	Sandy Young	Cotton Ex Centre
NCMA schedule 1.2 BMP officer Namoi valley	Katie Lightfoot	Namoi CMA
BMP general manager	Louise Adcock	Cotton Australia
Boyce cotton comparative analysis	David Newnham	Boyce Charter Accountants
Benchmarking water management	Graham Harris	Qld DPI&F
The economic impact of new technologies	Janine Powell	NSW DPI
Cotton production course	Dr John Stanley	UNE
Schools scoping	Dr Paula Jones	Cotton CRC
Postgraduate tour	Professor Peer Gregg	Cotton CRC/CRDC
Soil training workshops	Dr Inakwu Odeh	USyd
Education and training precision agriculture	Phil Price	GRDC
Leadership course	Philip Armytage	Cotton CRC