

Articles from IREC Farmers' Newsletter – edition 204 – Spring 2020, with a quick overview.

To be able to read the full article you must be a member of IREC.

Please go to [JOIN NOW](#) and become a member.

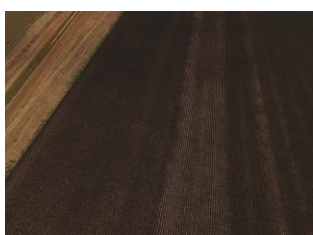


## A PROMISING SUMMER

**Robert Houghton** – Chairman IREC, Griffith

### QUICK TAKE

- The My digital farm project will finish soon but it sets up the framework for IREC to involve more growers in a process to better manage their own data and farm records to assist planning and decision-making.
- The months ahead at the field station will see cotton going into a green manure crop and mungbeans and rice double-cropped with barley. The irrigation systems under these crops explore several different layouts.
- A recent member survey has raised new issues for IREC to explore, and reinforced the interest in existing work at the IREC Field Station at Whitton.
- All the work at the field station come from the suggestions of members of IREC—keep the ideas coming!



## THE VALUE OF THE FINAL IRRIGATION – YEAR 2 REPORT

**Emma Ayliffe** - Summit Ag, Southern Valleys Cotton Growers Association

### QUICK TAKE

- Data was collected for a second year to help understand the value of the final irrigation of cotton in the Murrumbidgee Valley. While there were some useful results, significant rainfall in March at most sites confounded the yield responses to irrigation timing.
- The western sites that received less rainfall showed some good variation across treatments. At one site there was an 18% yield reduction when the final irrigation was in early February, compared to the grower standard of the final irrigation in mid-March.
- Micronaire results were variable and influenced by location. In all likelihood, they were highly influenced by the amount and timing of significant rainfall.



## NEW TECHNOLOGY TO LET PLANTS DO THE TALKING

**Dr Rose Brodrick** - Senior Research Scientist CSIRO Agriculture and Food

### QUICK TAKE

- WaterWise is an Australian first, developed to measure crop water stress and predict future water needs in real time.
- The system incorporates continuous measurements of crop canopy temperature, which are used to estimate if a crop is approaching water stress.
- The canopy sensors send readings to CSIRO's data infrastructure, along with data from nearby weather stations, where weather forecast information is added and CSIRO's unique prediction algorithm is applied to predict a crop's water requirements for the next seven days.
- The new prediction algorithms will be available to growers through a partnership between CSIRO and Goanna Ag.



## GETTING THE BEST OUT OF CROPPING SYSTEMS THROUGH INNOVATIVE PRODUCTS

**Andrew Doecke** - Innovation & Development Manager Omnia Specialities Australia

### QUICK TAKE

- Achieving maximum return on investment, inputs and labour is a never-ending challenge for all farmers.
- A trial at the IREC Field Station at Whitton is investigating the benefits of foliar applied nutrients and soil stimulants to cotton production.
- A suite of products and treatments is being tested, to determine their fit in the Riverina climate and cropping systems.
- Response to the treatments, and timing of applications, will be monitored, and the ultimate judgement will be made at the end of the season.



## OPTIMISING THE MANAGEMENT OF POULTRY LITTER IN SOUTHERN COTTON—3RD YEAR UPDATE

**Dr Wendy Quayle** - Senior Research Fellow Centre for Regional & Rural Futures Deakin University, Hanwood

### QUICK TAKE

- Poultry litter, sourced from chicken meat sheds in the Riverina, can potentially reduce fertiliser applications and increase yields in cotton crops.
- A three-year study on a red-brown earth showed that poultry litter spread at 15 m<sup>3</sup> /ha and incorporated in July/August, can offset 80 kg N/ha and 35 kg P/ha of nutrient traditionally applied by inorganic (mineral) fertilisers.
- Poultry litter applied before planting potentially reduces annual pre-plant fertiliser costs by \$80–100/ha.
- Over three years, the cumulative yield was highest in plots where litter was applied, which translated to increased revenue, for that period, of \$2000/ha.



## CLASSIFYING THE SUITABILITY OF MURRUMBIDGEE VALLEY SOILS FOR COTTON PRODUCTION

**Jonathon Moore** - PhD candidate The University of Sydney

### QUICK TAKE

- There is a lack of accurate soil spatial data for the mid–lower Murrumbidgee Valley, which is comprised of diverse and variable soil types.
- A new project to classify and map the suitability of Murrumbidgee Valley soils, between Narrandera and Maude, for cotton production started in April 2020.
- Identifying soils with the highest potential for cotton production will assist in justifying investment of on-farm and industry infrastructure and help growers prioritise irrigation applications to the most suitable soils in years with low water allocations.



## SAFETY FOR CASUAL WORKERS IS NOT DIFFICULT IF YOU MASTER A FEW BASICS

**Ange Harders** - *WHS Manager Safe Ag Systems*

### QUICK TAKE

- Nearly half of the agricultural workforce are casual workers and managing safety obligations can seem daunting.
- Casual workers may come from culturally and linguistically diverse backgrounds with little to no experience in farm businesses, meaning you will need to get creative to get the safety message through.
- While safety processes for casuals are consistent with permanent staff, there are challenges in managing implementation.
- Technology is replacing paperwork and making it easier to get crucial information at your fingertips.



## SMART IRRIGATION CONTROL SAVES WATER AND LABOUR IN RICE GROWING SYSTEMS

**George Revell** - *Principle Economist, Ag Econ, Sydney*

### QUICK TAKE

- Preliminary economic analysis shows smart irrigation automation control has positive economic benefits across a range of different water and labour price scenarios.
- Water savings were the biggest driver for economic benefits accounting for a 74% share of total benefits.
- Investment in smart irrigation automation for rice production is economical given underlying assumptions; however, individual farms and enterprises need to consider personal circumstances.



## THE SECRET TO GROWING MORE THAN 15 t/ha OF REIZIQ, TWO YEARS IN A ROW

**Harriet Brickhill** - *Extension Officer (Murrumbidgee) Rice Extension*

### QUICK TAKE

- Brett and Louise Turner have harvested more than 15 t/ha of Reiziq rice for two seasons in a row.
- The key to the Turners' success is making sure everything is done on time.
- Paddock preparation to ensure hard ground at sowing is essential for timeliness of operations.
- The Turners prefer drill sowing to fit rice in with their other farming operations.
- Water levels are kept to an absolute minimum early in the season to maximise tillering and reduce lodging risk.

**To be able to read the full article you must be a member of IREC.**

Please go to [\*\*JOIN NOW\*\*](#) and become a member.