

Articles in this edition, with a quick overview.

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WELCOME TO THE 200th FARMERS' NEWSLETTER

Rob Houghton Chairman IREC Irrigator, Gogeldrie

QUICK TAKE

- IREC continues to work with major commodity groups, universities and research organisations where ever possible to identify technology that will improve efficiencies right across our farming systems.
- There is plenty happening at the IREC Field Station at Whitton, with a fully automated recirculation system being implemented for the coming irrigation season; as well as preparations for a second cotton crop, that will provide income for IREC.
- IREC has changed its committee structure, the 'representative' committee spends more time delving into detailed research issues that affect our members; and an executive committee of four (including the chairman) deals with capital-raising, partnerships and administration of IREC.

UPDATE ON THE IREC FIELD STATION

Iva Quarisa Executive Officer, IREC

QUICK TAKE

- Since 2015, the IREC Field Station has hosted hundreds of visitors who have come to learn more about irrigation automation and irrigation layouts, and to see equipment and machinery in use.
- A cotton crop grown at the field station in 2017–18 provided the basis for a number of trials focused on cotton production, as well as providing a significant source of income for the ongoing operation of IREC.
- The success of the field station is due to the generous support of individuals, businesses, supply companies and research and development corporations — all with a common goal of a more productive, profitable and sustainable irrigation industry in the region.

WATER PRODUCTS—WHICH ONE TO CHOOSE?

Michael Ryan, Riverina Agriconsultants

QUICK TAKE

- There are several water products available, including owning or leasing entitlements and purchasing an allocation.
- Each product has pros and cons: owning an entitlement is capital intensive and reliability of allocations vary, however temporary markets are volatile.
- Every business is unique so consider which products best suit your cashflow, balance sheet and appetite for risk.
- Understand key business drivers and cut off prices that underpin purchase decisions.

THE 2018 COTTON SEASON REVIEW

Kieran O'Keeffe Regional Extension Officer, Southern NSW CottonInfo team

QUICK TAKE

- During the 2017–18 growing season, the southern cotton growing region experienced fewer cold shocks and more hot shocks than average.
- Yields were above average for the season, with most farms averaging 11–12 bales/ha. This is above the long-term average of 10.8 bales/ha.
- Good to average yields combined with exceptional lint and cotton seed prices saw average gross margin per hectare (GM/ha) returns of \$2460.
- Estimated water use ranged from 8 to 13 ML/ha, with the average across the survey data set being 10 ML/ha.

SAVE WATER AND USE NITROGEN BETTER WITH IMPROVED WATER MANAGEMENT

Kieran O’Keeffe¹ and Janelle Montgomery² 1 Regional Extension Officer, CottonInfo, Southern NSW 2 Regional Extension Officer, CottonInfo Gwydir

QUICK TAKE

- Correct placement of pre-plant nitrogen fertiliser in cotton crops can minimise nitrogen losses in the first two irrigations.
- Three-quarters of the irrigation events measured in replicated trials had an application efficiency of less than 80%, therefore there is significant room for improvement in irrigation management.
- Increased irrigation flow rates can result in excess tailwaters if siphons are not pulled at the correct time; and this can significantly reduce the efficiency of an irrigation event.

DETERMINING BEST PRACTICE FOR CURRENT AND NEW RICE VARIETIES

Brian Dunn, Tina Dunn, Craig Hodges and Chris Dawe NSW Department of Primary Industries, Yanco

QUICK TAKE

- This project provides growers with agronomic information on how best to manage current and new rice varieties.
- Improved management maximises grain yield and water productivity and improves the consistency of achieving both.
- The project identifies how rice varieties respond across seasons and regions to different sowing methods, water management practices, nitrogen rates and application timings.
- The impact of all these factors on crop growth and development, grain yield and grain quality is measured to determine best management practice.

HYBRID RICE FOR AUSTRALIAN FARMERS – HYPE OR HOPE?

Ben Ovenden¹ , You Zhang² , Kylie Elliott¹ , Greg Napier¹ , Dee Sparkes¹ , Liz Dennis² and Jim Peacock² 1 NSW Department of Primary Industries, Yanco 2 University of Technology Sydney, Ultimo

QUICK TAKE

- Hybrid technology could be a way of extracting a large genetic gain from elite Australian germplasm in a short time to rapidly realise the yield and water productivity benefits of hybrid rice.
- Experiments at Yanco showed increased yield (and water productivity) from an Australian F1 rice hybrid. Hybrid plants were larger, taller and more vigorous than either parent.
- New breeding tools would need to be implemented to develop Australian hybrid rice varieties.

IN-FIELD SENSING SYSTEMS FOR MAXIMISING RICE FARM PRODUCTIVITY

James Brinkhoff and John Hornbuckle Deakin University, Centre for Regional & Rural Futures, Griffith NSW

QUICK TAKE

- The use of in-field sensing tools for rice production has lagged behind other industries.
- Recently Deakin University developed a WiFi-enabled sensing system specifically for rice production systems. It monitors soil moisture profile, temperature profile and water level simultaneously using one probe, enabling growers to save water and maximise yields.
- The system can be used for optimising irrigation timing when using delayed permanent water, precisely managing water depth to protect the crop during cold periods and monitoring dry down after lock up.
- Data is available online in real time and can be linked to automation.

WHAT'S THE LIKELIHOOD OF GOULBURN, MURRAY AND MURRUMBIDGEE RIVER INFLOWS IN 2018?

Dale Grey Seasonal Risk Agronomist, Biosecurity and Agriculture Services Branch Department of Economic Development, Jobs, Transport and Resources , Victoria

QUICK TAKE

- The 2018 season is delicately poised, for both winter and summer crops.
- At the time of writing, there is no El Nino but there are indicators that one could form. However plenty of random things need to happen first.
- The Indian Ocean has started playing unfair with a positive Indian Ocean Dipole like cooling off Indonesia and associated lack of cloud; stronger pressure needs to decrease, or the effect could be similar to either phenomena, i.e. El Nino or positive Indian Ocean Dipole.
- Catchments of the south-eastern Murray– Darling Basin are influenced negatively by high pressure, particularly during winter.