



WELCOME FROM NEW CHAIR

Matt Toscan – Chair IREC and Irrigator

QUICK TAKE

- Chairman's article for this year's autumn edition
- Welcome new IREC Team
- Thank you to staff, members and supporters
- Past summer proved to be one of extremes



IREC UPDATE

Iva Quarisa – Executive Officer, IREC

QUICK TAKE

- Cool Soil Initiative has expanded to include soft wheat industry, with maize component also growing
- New project looking at nitrogen set to commence
- Introduction to new staff



VARIETY TRIALS SUPPORT GROWTH OF A NEW INDUSTRIAL HEMP INDUSTRY

Mark Skewes – Research Scientist Research Scientist, Industrial Hemp Variety Trials National Coordinator, South Australian Research and Development Institute (SARDI) and **Tim Schmidt** – President of the Australian Hemp Council

QUICK TAKE

- Industrial hemp, with its diverse range of uses including textiles, stockfeed, pet bedding, human food (seed) and building materials, is identified as an emerging industry with high potential for growth.
- A nationally coordinated program of industrial hemp variety trials has been established to identify the best varieties and sowing times for hemp grain in current and future major production environments.
- A new Hemp Best Management Practice manual will be published later in 2023 to assist farmers and agronomists, who are new to the industry to grow high yielding industrial hemp crops and realise potential value from the crop.

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

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GROWTH REGULATOR PERFORMANCE DAMPENED IN SEASON 2022

Sam Rafferty and Hayden Petty – Summit Ag Agricultural Consulting

QUICK TAKE

- The effect of plant growth regulators (PGR's) was investigated on irrigated barley and durum wheat in 2022 but a wet winter and 200 mm of rain in October made it difficult to determine responses.
- For barley, the PGR treatments did not improve yield or minimise lodging, although yield loss due to lodging were minimal.
- For durum wheat, there was no significant yield or protein changes from the application of PGR's, however, Mataroi may be a good candidate for PGR application to reduce lodging in a situation where soil constraints are not limiting. PGR applied to Vittorio resulted in a 'slight' increase in protein and test weight.



GLYPHOSATE-RESISTANT WEEDS ON THE MOVE IN THE RIVERINA

Christopher Preston– School of Agriculture, Food and Wine, University of Adelaide and Christina Ratcliff– CSIRO, Agriculture and Food, Glen Osmond, SA

QUICK TAKE

- Glyphosate resistance was present in about half of the samples of flaxleaf fleabane collected in the Riverina and in more than 70% of samples of annual ryegrass.
- Glyphosate resistance in both weeds was distributed across the Riverina, consistent with multiple sites of evolution and spread.
- Glyphosate-resistant weeds were present on all land uses including agricultural land, road sides and channel banks, as glyphosate is used on all these locations.



SUPPORTING INNOVATION AND APPLIED RESEARCH IN THE COTTON INDUSTRY

Kieran O'Keefe– Regional Extension Officer, Southern NSW CottonInfo team

QUICK TAKE

- Cotton Seed Distributors (CSD) has established the Richard Williams Commercial Research Initiative to support applied and innovative research for the benefit of Australian cotton growers.
- The initiative aligns with the CSD strategy and will complement and leverage existing industry investment in applied & grower-facing research.
- The new initiative will support Disease Action Groups, across all cotton-growing areas, and work with growers and consultants to capture and validate the many disease management practices in use across the industry.

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MANAGING IRRIGATION DAMS FOR CARBON BENEFITS

Dr Jackie Webb– Centre for Regional and Rural Futures, Deakin University

QUICK TAKE

- This article draws on key points from the fact sheet 'Managing irrigation dams for carbon benefits' published on the AgriFutures Australia website, March 2023. The fact sheet reports on findings from the project 'Quantifying the greenhouse gas emission and carbon co-benefits of on-farm irrigation dams' funded as part of the AgriFutures Australia Carbon Program. The project team was Dr Jackie Webb, Assoc. Prof. Wendy Quayle and Dr Carlos Ballester of CeRRF, Deakin University, Hanwood.

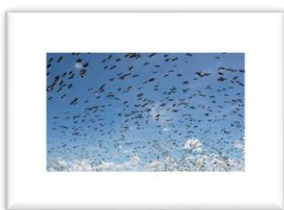


DEVELOPING OPPORTUNITIES TO BENEFIT BASIN COMMUNITIES

One Basin CRC

QUICK TAKE

- The One Basin CRC brings together 85 partners in irrigation, to develop and commercialise opportunities for Australia's irrigated agriculture and rural water industries.
- The CRC also aims to deliver benefits to the Basin's environmental, tourism and technology sectors, for the benefit of regional communities and First Nations people.
- Four regional hubs will be established throughout the Basin – one being at Griffith.
- Researchers, project managers and students will be based at each hub and work on locally relevant innovations and solutions for sustainable, profitable and fair use of the Basin's water resources into the future.



PROTECTING AND RESTORING THE RIVERS AND WETLANDS OF THE MURRUMBIDGEE VALLEY

Michele Groat– Local Engagement Officer Central Basin Delivery Section
Commonwealth Environmental Water Office

QUICK TAKE

- After a program of wetland management in recent years, the wetlands of the lower Murrumbidgee Valley were in good condition to support a large influx of waterbirds seeking habitat and food.
- Despite an exceptionally wet year and extensive flooding, the wetlands of the Murrumbidgee Valley continue to be watered strategically, to mitigate low oxygen blackwater events and to slow down the recession of water from rivers after water orders are delivered, reducing the risk of bank slumping and erosion.
- Environmental water management is a collaborative exercise involving many partners.

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SPRAY DRIFT – STILL AN ISSUE ACROSS NSW

Annette McCaffery, Coordinator, Stop Off-target Spraying NSW

QUICK TAKE

- Spray drift remains a serious and ongoing issue for all farmers across New South Wales and Australia.
- The factors contributing to spray drift are well known but still spray drift occurs on a regular and extensive basis.
- The Australian-developed Weather and Networked Data (WAND) system is a world first in providing hazard warning system to support growers and spray applicators – it's app-based, and free, so sign up now!



IREC FIELD DAY 2023

Virginia Porcile, Iva Quarisa and Monica Armanini, IREC

QUICK TAKE

- The IREC Annual Field Day was held at the IREC Field Station in Whitton on 16 February 2023.
- There were 95 participants and presentations on a variety of topics.
- Several companies displayed and demonstrated their latest autonomous technology machinery.

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