Articles from IREC Farmers' Newsletter – edition 205 – Autumn 2021, with a quick overview. To be able to read the full article you must be a member of IREC.

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GOOD ALLOCATIONS BOOST IRRIGATOR CONFIDENCE

Robert Houghton - Chairman IREC, Griffith QUICK TAKE

Good rain gives rise to a range of opportunities for all irrigators. It is fantastic to be able to use our improved irrigation systems and grow a range of summer crops this season. Rice, cotton, maize, sorghum, soybeans and mungbeans have been planted and irrigated out around the region this summer, with varying results.

FALL ARMYWORM – A NEW THREAT TO SUMMER CROPS

Mark Stevens 1, Duong Nguyen 2, Bill Gordon 3 and Lisa Bird 4 - NSW Department of Primary Industries

1 Yanco Agricultural Institute 2 Elizabeth Macarthur Agricultural Institute 3 NSW DPI Head Office, Orange 4 Tamworth Agricultural Institute QUICK TAKE

- Fall armyworm is native to north and central America and arrived in Australia in early 2020.
- It is known to feed on over 350 different plant species, with maize, sweet corn, sorghum and C4 pastures being preferred hosts.
- Migratory flights of adult moths from southern Queensland and coastal northern NSW are likely to affect inland NSW cropping areas each year.
- Resistance to organophosphate, carbamate and synthetic pyrethroid insecticides has already been detected in NSW populations.

LIFTING THE PRODUCTIVITY OF IRRIGATED CROPPING SYSTEMS

Nick Poole - Managing Director, Field Applied Research (FAR) Australia QUICK TAKE

- The 'Optimising Irrigated Grains' project aims to lift the productivity and profitability of irrigated farming systems in South-East Australia.
- Early indications from the research suggest that it is uneconomic to fertilise irrigated crops with more and more nitrogenous fertiliser purely because the crop has higher yield potential under irrigation.
- First-year results indicate that high yielding irrigated crops of grain maize, canola and high protein durum wheat depend on large amounts of nitrogen being supplied by mineralisation from the soil. As such, they are dependent on a fertile farming system rather than simply adding more and more artificial fertiliser.



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OPPORTUNITIES FOR AREA-WIDE MANAGEMENT OF WEEDS IN THE RIVERINA

Gina Hawkes - Researcher University of Wollongong

Sonia Graham - Senior Research Associate University of Wollongong QUICK TAKE

- Social researchers at the University of Wollongong are studying how people manage weeds in the Riverina, Sunraysia and Darling Downs regions.
- The five weeds of most concern to Riverina survey participants are ryegrass, fleabane, silverleaf nightshade, feathertop Rhodes grass and barnyard grass.
- The four key challenges for weed management in the Riverina are herbicide resistance, insufficient government funding, spray drift and roadside and waterway management.
- There was little agreement about what area wide management of weeds means, the size of the area it could cover, or the activities it could include.



James Hereward - Researcher, The University of Queensland, Brisbane QUICK TAKE

- The 'Area Wide Management of Weeds' project is using genetics to understand the movement of fleabane and annual ryegrass.
- Seeds and pollen of problem weeds can carry resistance genes around the farming landscape.
- 64% of fleabane populations from MIA are resistant to glyphosate, but all susceptible to paraquat.
- Fleabane has distinct populations, in terms of genetic makeup, in different regions, but within regions populations are highly mixed, genetically.



STRONG VISION AND MODERN FARM LAYOUT SET THE DRAPERS APART

Harriet Brickhill - Extension Officer, Rice Extension Troy Mauger - Coordinator, Rice Extension QUICK TAKE

- The Rice Industry Awards are designed to showcase the best in the rice-growing business and to highlight innovation in production and irrigation methods, as well as water use efficiency.
- The awards encourage and recognise significant contribution to the industry, with the aim of inspiring higher productivity through improved yields, maximised water use efficiency, adoption of new technologies and sustainable management practices.
- The 2020 SunRice Grower of the Year was awarded to Peter and Erin Draper of Leeton. Their innovative approach to farming and a commitment to ongoing learning, for themselves and their employees, caught the judges' attention.



ACCESSING THE FRUITS OF HORTICULTURAL RD&E

Adrian Englefield - Regional Extension Manager, South-East Region Hort Innovation, Wagga Wagga

QUICK TAKE

Hort Innovation is the grower-owned, not-for-profit, R&D corporation for Australia's horticulturalists. Each year, Hort Innovation invests more than \$120 million in R&D, marketing and trade programs on behalf of growers and their industries.





UPSKILLING NSW CROPPING INDUSTRIES

Claudia Vicary - Project Officer, AgSkilled QUICK TAKE

- The NSW Government has committed \$15 million to upskilling primary producers across the plant-based sectors of the state's agricultural industry.
- Fully funded training is available to eligible participants from the cotton, grains, production horticulture, viticulture and rice industries.
- Training will increase the productivity and safety of the existing workforce and offer career pathways for new industry entrants.
- Current and relevant training is tailored to the needs of industry, including training in drones, agronomy, advanced chemical application, leadership and professional development.



A HEALTHY RESEARCH PROGRAM DRAWS A HEARTY CROWD TO THE IREC FIELD DAY

Iva Quarisa - Executive Officer, IREC, Griffith

QUICK TAKE

- More than 110 people viewed trials and listened to researchers at the 2021 IREC Annual Field Day.
- A trial was viewed where the effect of reduced inundation of rice on phosphorus tie-up and weed and disease problems in the cotton rotation is being investigated.
- Options to manage glyphosate resistance in weeds of cotton crops were discussed, and results from trial work so far, show yields are highest where residual pre-emergent herbicides overlap to provide ongoing weed control throughout the growing season.
- A recipe for successful mungbean production was presented as a 13-step program.