2022 GRAINS RESEARCH UPDATE, Perth



Program DAY 1 – Monday 21, February

Plenary presentations

9.00 am	Opening and future directions for GRDC investments in grains RD&E – John Woods, Chairman GRDC
9.30 am	'Seed of Light' presentation – Darrin Lee, Chairman GRDC Western Panel
9.45 am	Greenhouse gas emissions of Australian grain production – Maartje Sevenster, CSIRO
10.15 am	BREAK
10.30 am	Carbon neutral grain farming by 2050 – an example in calculating net emissions for a broadacre farm and strategies to reduce net emissions – Mandy Curnow, DPIRD
11.00 am	Market Outlook for the WA grains industry in 2022 and the longer term – challenges and opportunities – PANEL DISCUSSION WITH: Cheryl Kalisch-Gordon, Rabobank; Jason Craig, CBH; John Orr, Premium Grain Handlers; and Richard Simonaitis, AEGIC
12 noon	BREAK
12.30 pm	Australian soft wheat for Asian markets – Ken Quail. AEGIC
1.00 pm	Wheat agronomy management – managing risk versus potential – Dion Nicol, DPIRD
1.30 pm	Blackleg control in the upper canopy of canola crops – Steve Marcroft, Marcroft Grains Pathology
2.00 pm	BREAK
2.15 pm	Forewarned is Forearmed – new BoM tools for weather forecasting and climate services for agriculture – Dale Grey, Agriculture Victoria
2.45 pm	Lessons for growers from the hyper yielding crops and high rainfall zone farming systems projects in WA – Nick Poole, FAR Australia
3.15 pm	Day 1 concludes

This program may be subject to change.

DAY 2 — Tuesday 22, February Plenary presentations

9.00 am	Gene-editing technology – what can it deliver to growers and the grains industry – Catherine Feuillet, Chief Scientific Officer, INARI, USA
9.40 am	The interaction between wheat establishment timing and pre-emergent herbicides choice on annual ryegrass seed production – Mike Ashworth, AHRI, UWA
10.10 am	The fit of long coleoptile wheats in WA grain farming systems – observations from the 2021 growing season – Michael Lamond, SLR Agriculture
10.40 am	BREAK
11.00 am	Optimising fertiliser application – what level of precision can we achieve? – Craig Scanlan, DPIRD
11.30 am	Fertiliser strategies in response to higher prices – PANEL DISCUSSION WITH: Peter McEwen, Agri-Access; James Easton, CSBP; Elizabeth Petersen, UWA; and Craig Scanlan, DPIRD
12.30 pm	BREAK
1.00 pm	Tips for canola establishment – Jackie Bucat, DPIRD and Matt Nelson, CSIRO
1.30 pm	Oat varieties for 2022 and the new national oat breeding program – Allan Rattey, InterGrain
2.00 pm	BREAK
2.15 pm	Mice control – Steve Henry, CSIRO
2.45 pm	Why bother with artificial intelligence in agriculture? Because it can improve fertiliser management? – Jonathan Richetti, CSIRO
3.15 pm	Day 2 concludes

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Program DAY 3 – Tuesday 1, March

NUTRITION		
9.00 am	Agronomic factors are the dominant influence on nitrogen fertiliser strategies in SW Australia – Elizabeth Petersen, UWA	
9.25 am	Potassium rundown in the Western grains region – where, why and what does it mean for crop yields – Richard Bell, Murdoch University	
9.50 am	Does optimum wheat phosphorus requirement change with sowing time and conditions in WA? – Mark Gherardi, Summit Fertilizers	
10.20 am	NEW RESEARCHER SNAPSHOT: The power of flux towers for measuring crop productivity and water use – Caitlan Moore, UWA	
10.40 am	Session concludes	
NITROGEN FROM LEGUMES		
11.00 am	Pasture legumes suited to the low to medium rainfall zones consistently achieve high protein levels in subsequent cereal crops – Robert Harrison, CSIRO	
11.25 am	Profitability, costs and risks associated with establishing annual pasture legumes in cropping rotations — Dean Thomas, CSIRO	
11.50 am	Optimising nitrogen fixation in legumes through improved rhizobia strains – Ron Yates, DPIRD	
12.15 pm	NEW RESEARCHER SNAPSHOT: Soil moisture mapping in agricultural fields using electrical conductivity sensing – Hira Shaukat, UWA	

12.35 pm Day 3 concludes

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DAY 4 — Thursday 3, March

CROP PROTECTION	
9.00 am	Ice nucleating bacteria and frost – Amanuel Bekuma, DPIRD
9.25 am	How well does assessment of outer florets of wheat heads following frost(s) relate to grain yield at the end of the season? – Brenton Leske, DPIRD
9.50 am	AHRI herbicide resistance update 2021 – most significant results from the field to the lab – Roberto Busi, AHRI UWA
10.15 am	NEW RESEARCHER SNAPSHOT: Electric weed control in Australia – Miranda Slaven, DPIRD
10.35 am	Session concludes
11.00 am	Advances in controlling brome and barley grass – Gurjeet Gill, University of Adelaide
11.25 am	Maximising crops and minimising weeds with smart phase farming – Yaseen Khalil, AHRI, UWA
11.50 am	Yes, no, maybe – getting value from herbicide resistance testing – Fiona Dempster, AHRI, UWA
12.15 pm	Determining yield loss in canola following Sclerotinia stem rot infection – Sarita Bennett, CCDM, Curtin University
12.40 pm	NEW RESEARCHER SNAPSHOT: Spraying for yellow spot leaf in wheat – will you lose money? – Anna Hepworth, DPIRD
1.00 pm	Day 4 concludes

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Program DAY 5 – Tuesday 8, March

CANOLA	
9.00 am	Effect of seed singulation and seeding rates of canola on yield and competition against ryegrass – Glenn McDonald, University of Adelaide and Glen Reithmuller, DPIRD
9.30 am	Canola pre-breeding for heat tolerance – Sheng Chen, UWA
9.55 am	Spring versus winter canola phenology across Australia – new insights for WA growers – Jeremy Whish, CSIRO
10.20 am	NEW RESEARCHER SNAPSHOT: Chemical cues used by natural enemies of the green peach aphid to find their prey in canola fields – Andrew Phillips, Murdoch University
10.40 am	Session concludes
CEREALS	5 – wheat, oats and barley
11.00 am	Understanding the fit of winter wheats for WA environment – Brenda Shackley, DPIRD
11.25 am	Pre-harvest sprouting begins at seeding – Jeremy Curry, DPIRD
11.50 am	Growing a future for oats – Ross Kingwell, AEGIC
12.15 pm	NEW RESEARCHER SNAPSHOT: Genetic solutions to enhance spikelet fertility and grain plumpness during heat stress at flowering in barley – Camilla Hill, Murdoch University
12.30 pm	Day 5 concludes

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DAY 6 — Thursday 10, March

SOILS	
9.00 am	The combined influence of micro-water harvesting, deep ripping and gypsum on yield of barley in sodic soils — Wayne Parker, DPIRD
9.25 am	Sand and gravel mulches for sodic soils – David Hall, DPIRD
9.50 am	NEW RESEARCHER SNAPSHOT: Improving the understanding of soil water behaviour in re-engineered soil profiles – Kanch Wickramarachchi, DPIRD
10.05 am	NEW RESEARCHER SNAPSHOT: Efficacy of pre-emergent herbicides on renovated soil – Sultan Mia, DPIRD
10.20 am	On farm experimentation – developing robust analysis for paddock scale trials – Julia Easton, Curtin University
10.45 am	Session concludes
10.45 am	Session concludes
10.45 am PULSES	Session concludes
	Session concludes Faba bean agronomy – Mark Seymour, DPIRD
PULSES	
PULSES	Faba bean agronomy – Mark Seymour, DPIRD
PULSES 11.00 am 11.25 am	Faba bean agronomy – Mark Seymour, DPIRD Double break crop sequences with high value legumes – awesome when it rains! – Nathan Craig, West Midlands Group

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