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Future RD&E on canola pathology: View of DAFWA

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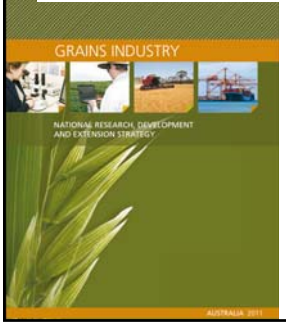
National RD&E strategy & DAFWA



- DAFWA is a strong supporter & a leader of Grains Industry National RD&E strategy
- DAFWA is ever prepared to lead where recognised as "strong", and to support and provide linkages as appropriate. e.g. NVT canola pathology work; validation of PreDicta B

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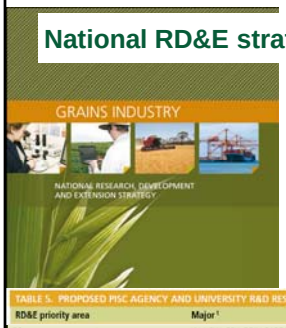
National RD&E strategy & DAFWA



- We are recognised as leader, along with I&I NSW, CSU, DPIV, SARDI, DEEDI/QAAFI, in disease management; our speciality in Decision Support Systems is well recognised

TABLE 5. PROPOSED PISC AGENCY AND UNIVERSITY R&D RESPONSIBILITY MATRIX (CONTINUED)

RD&E priority area	Major [1]	Support [2]	Link [3]
Disease management (pathogen diagnostics, etiology and epidemiology, fungicide deployment, cultural control, resistance and IDM)	I&I NSW, CSU, DPIV, SARDI, DAFWA, DEEDI/QAAFI	CSIRO, UM, UWA, ACNFP, US	

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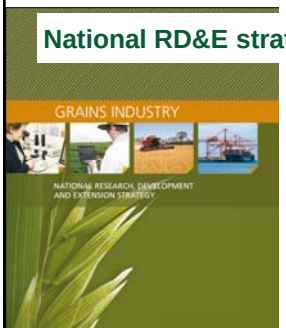
National RD&E strategy & DAFWA



- DAFWA believes the process of collaboration involving all players so that aspirations and intentions of all are taken care of
- DAFWA understands that for WA growers to get the best value from RD&E, we need to have an effective national science team

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DAFWA's strengths

- DAFWA has strength in terms of its connectivity to the WA grains industry and we understand the conditions prevailing across the state
- We understand the priorities of various regions; for example, Sclerotinia is perceived as a problem in the North and blackleg remains an important issue for the South

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DAFWA's strengths

- DAFWA, together with GRDC, is working on Canola Agronomy, and blackleg management is being integrated in this work

Rotation	Two-year total gross margin ($/ha)
Canola – Wheat	740
Wheat – Wheat	710
Lupin – Wheat	653
Barley – Wheat	523
Field pea – Wheat	399
Oats – Wheat	397

Crop sequence trials, Katanning

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DAFWA's strengths

- DAFWA has got diverse experience in canola pathology and its science

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DAFWA's strengths

- Crop Health Sub-programme
  Art Diggle
- Weeds
  Alex Douglas
- Pests & Diseases
  Bill MacLeod
- Better Decisions & Information Flow
  Moin Salam

- Executive Director
  Grains Industry
  Mark Sweetingham
- Director
  Grains Industry Development
  Kerrine Blenkinsop
- Director
  Grains Innovation Networks
  David Bowran
- Director
  Grains Technology & Innovation
  Tim Setter

DAFWA's "Crop Health" sub-programme

Management of genetic resistance, nutrition, abiotic impediments (moisture stress & frost) & biotic impediments (weeds, pests & diseases) – boost confidence not to over-use chemicals

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DAFWA's future initiatives

- DAFWA is leading and will continue to lead in research addressing regional problems in WA as a part of national collaborative research team
- Activities of canola pathology in WA's southern agricultural region are to be strengthened by positioning a new pathologist in Katanning
- DAFWA is a leader & will continue to lead in the area of decision support systems, and is recognised nationally & internationally; a proven record of applying DSS's across southern Australia in managing blackspot disease on field pea

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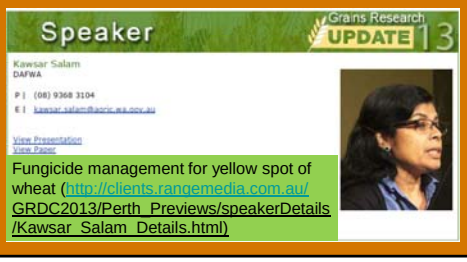
DAFWA's future initiatives

- Recently, we have developed a technique of meta-analysis to synthesise large amount of data



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DAFWA's future initiatives

- In coming years, DAFWA will extend its work on:
  - Meta-analysis for information generation
  - Building a "Crop Health System" for better decision making and information flow

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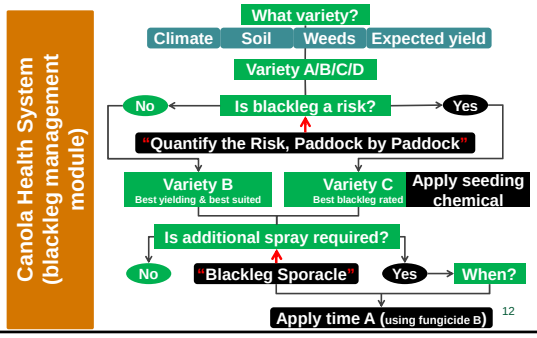
DAFWA's future initiatives



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DAFWA's future initiatives

"Blackleg Sporacle" was developed in 2003. The model predicts the onset and progress of blackleg spore release in the current season based on local weather

The model has been successfully tested nationally and internationally - Western Australia, South Australia, New South Wales, & a number of European countries

Mainly used in Australia as a "researchers tool" - to predict the timing of disease arrival

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DAFWA's future initiatives

We believe there is significant scope for using Blackleg Sporacle to decide the timing of in-crop sprays for blackleg management. We will incorporate this into the "Crop Health System"

We have good experience in understanding the epidemiology of Sclerotinia. We are in a position to quantify the epidemiology of this disease and develop decision tools for the need and timing of fungicide application – this to be part of the "Crop Health System"

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Conclusions

Stability of canola industry in WA: DAFWA work will foster stability by developing practical management tools for Sclerotinia and Blackleg

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