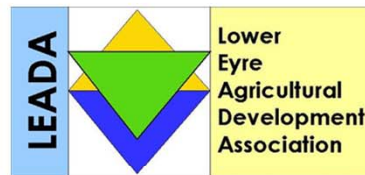


Jacob Giles, SARDI

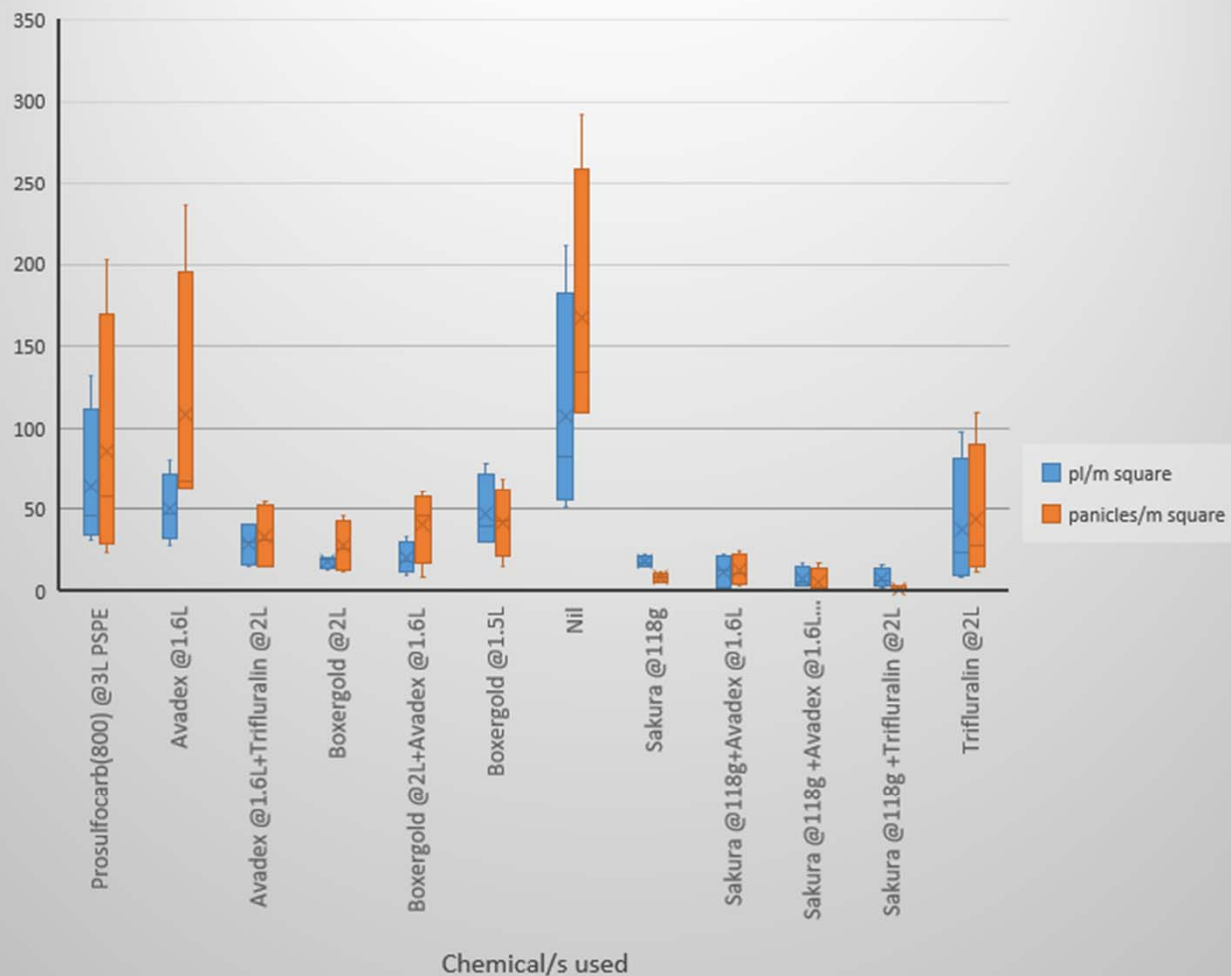
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Pre-emergent herbicide efficacy in stubble retained systems

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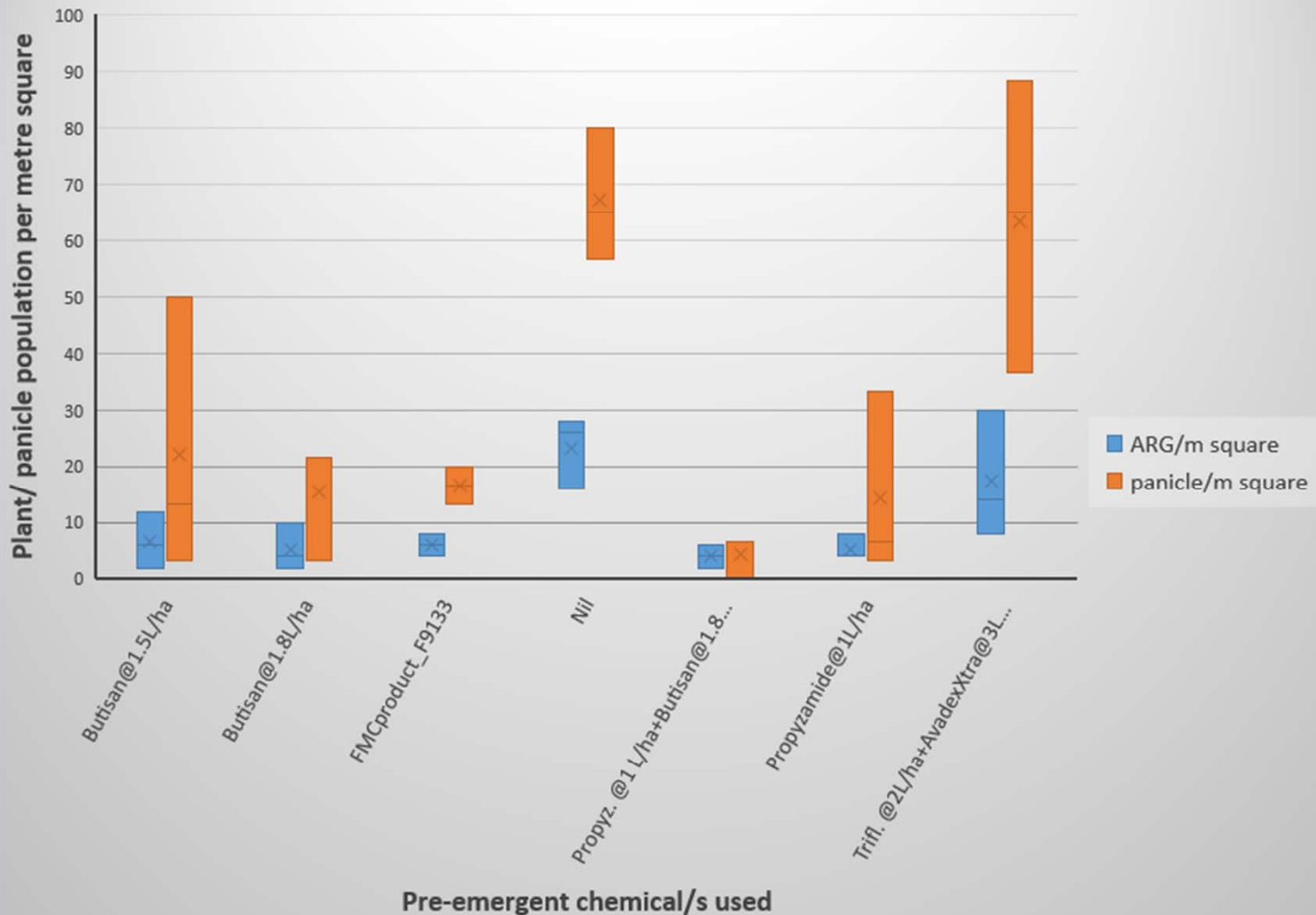


Pre-emergent herbicide efficacy in a dry sowing scenario in wheat



- Cutting chemical rates is not advised where conditions may compromise results.
- Boxer Gold[®] and Sakura[®] both showed proficient levels of establishment control (83%).
- Sakura[®] had a prolonged effect beyond establishment as panicle numbers were lower than establishment number across all treatments.
- Prosulfocarb PSPE did not provide adequate ARG control.

Pre-emergent herbicide efficacy in canola in a dry-sown scenario



- Butisan[®], Propyzamide and FMCproduct all provided proficient control when sown 2 weeks dry.
- Older chemistry (Trifluralin + AvadexXtra) provided poor control.
- Stacking chemistries shows best results with a greater residual effect also seen, (Propyzamide + Butisan[®]).

Water rates

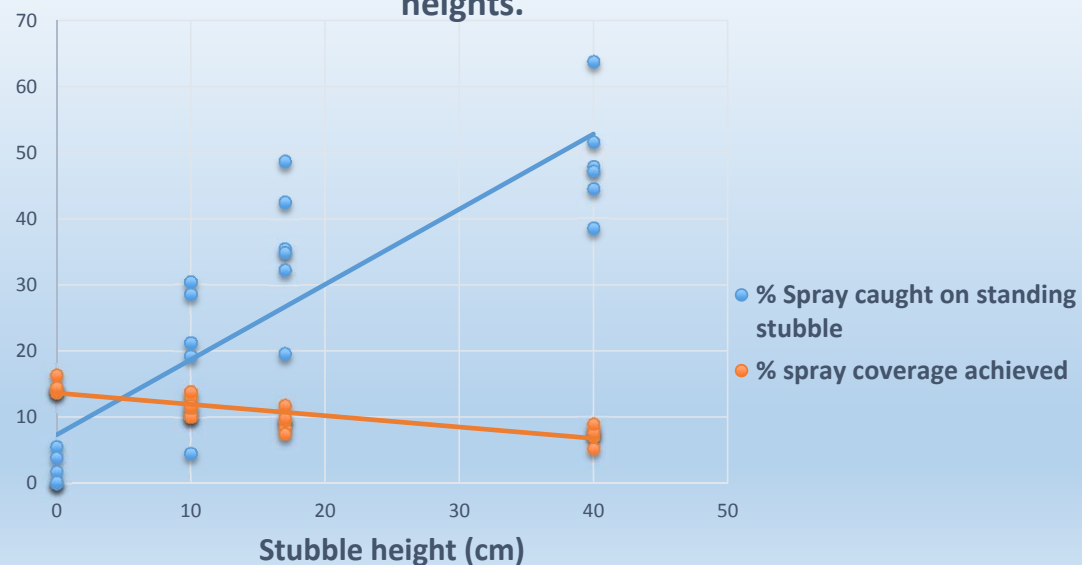
Water Rate (L)	Ryegrass (plants/m ²)	Reduction from control (%)
50	21 ^a	52
100	12 ^b	73
150	11 ^b	75

Gontar, B 2015 'Improving Pre-emergent Herbicide Efficacy in Retained Stubble'

- High water rates attribute to a more regular distribution of chemical per area. Through this efficacy is not dependent on the mobility of this chemical, which in turn ensures a better outcome.
- A 21% increase in control was seen where rates were increased from 50 to 100L
- No significant difference in control was seen when water rate was increased to 150L

Standing stubble and its potential to effect efficacy of pre-emergent herbicides.

Spray coverage and interception as effected by varying stubble heights.



Stubble height (cm)	Percentage of chemical contacting soil
0	0
10	79
17	63
40	50

Avoid using pre-emergent that are highly volatile or maintain a high binding co-efficient in stubble retained systems.

Consider rainfall events post application as a means of minimising this effect. The degree of stubble 'wash off' will depend on rainfall proximity and the chemistry utilised.