

# Annual Ryegrass Control in the HRZ

## Hamilton Crop Walk with Dr Chris Preston

*“Development of local strategies to enable the integrated and profitable management of annual ryegrass seed banks in high rainfall zone farming systems of the Southern Region”*

More information about the demonstration sites and results can be found at:

<https://agwine.adelaide.edu.au/research/farming-systems/weed-science/hrz>

### Project Background

- Late emerging annual ryegrass (ARG), with high seed set and seed banks in the HRZ
- ARG populations quickly rebound when management pressure is reduced.
- Moderate populations of ARG (<100 plants m<sup>-2</sup>) have less impact on yield than they do in other regions.

Hamilton is one of 5 demonstration sites established across southern Vic & South East SA.

- Each site has 4 management strategies, with increasing intensity.
- Which strategies provide effective and profitable management of ARG in the HRZ?
- Sites sown to break crop in 2018 and wheat in 2019.
- Management strategies for each site are developed with local agronomists.

### Trial Management Plans

Hybrid TT Canola Ignite sown 13/5. (Wheat stubble burned + knockdown herbicide.)

Timing	Treatment No. 1 (district practice)	Treatment No. 2	Treatment No. 3	Treatment No. 4 (high input)
Pre-em (13/5)	simazine (1.1 kg/ha) + atrazine (1.1 kg/ha)	simazine (1.1 kg/ha) + atrazine (1.1 kg/ha)	simazine (1.1 kg/ha) + atrazine (1.1 kg/ha)	Propyzamide (1 L/ha) + Triflur (1.6 L/ha) + Avadex (1.6 L/ha)
Post-em (6/6)	-	-	atrazine (1.1 kg/ha)	atrazine (1.1 kg/ha)
Post-em (29/6)	clethodim 0.5 L/ha	clethodim 0.5 L/ha	clethodim 0.5 L/ha	clethodim 0.5 L/ha
Pre-harvest		Late DST glyphosate @3L	Late DST glyphosate @3L	Late DST glyphosate @3L
Harvest				Chaff line: in furrows

## Treatment Strategy vs Ryegrass Numbers

- Mean canola establishment: 10 plants/m<sup>2</sup>
- Ryegrass establishment is affected by treatment strategy (Figure 1)
- Upcoming assessments: ryegrass heads/m<sup>2</sup>, crop yield

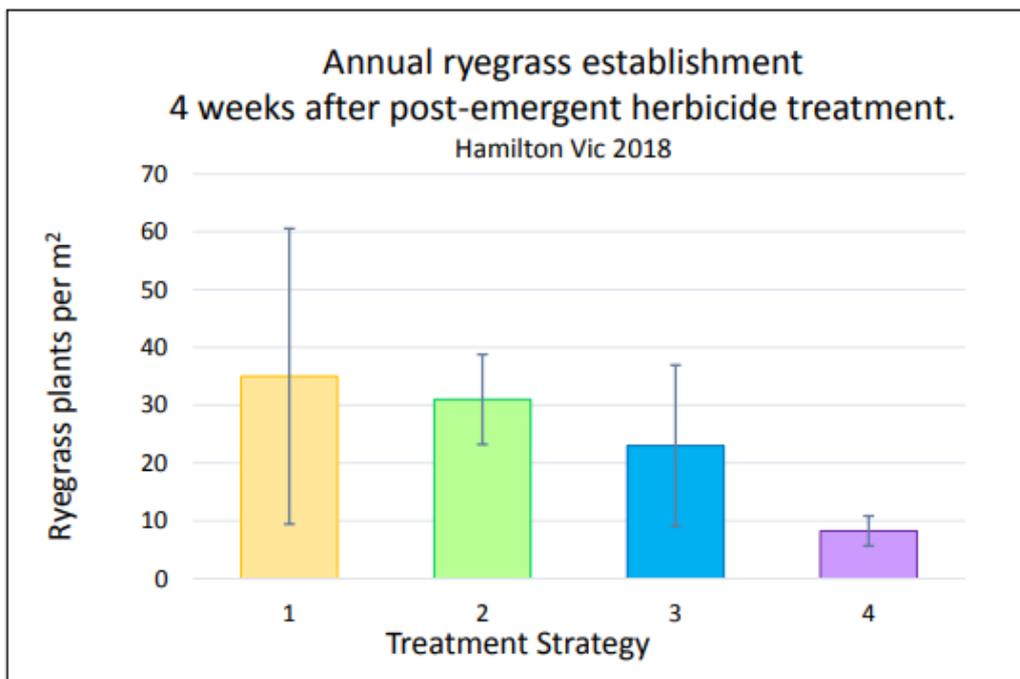


Figure 1. ARG numbers (plants/m<sup>2</sup>) 4 weeks after post-em herbicide treatment.

## Upcoming Opportunities

- Paired-paddock test strips
  - Test an idea and SFS can assist with data collection, 2018 or 2019
- ARG control workshop, Skipton area
  - Replacing mid-season crop walk for Berrybank and Inverleigh nodes;
  - Inspecting Lake Bolac trial sites with Chris Preston, Gurjeet Gill and Benjamin Fleet, followed by a facilitated workshop;
  - 23 October, Skipton area.
- Project planning meeting
  - Inspect Inverleigh and/or Berrybank on-farm trials;
  - Discuss ryegrass control with agros from across the Western Districts;
  - Determine on-farm trial treatments in wheat for 2019;
  - February 23, Inverleigh.