



Department of
Agriculture and Food



GRDC Grains Research &
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Management options for Sclerotinia in Canola: 2014 and beyond.

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25th February 2014



Bayer CropScience



Foliar fungicides registered for Sclerotinia control:

Registered products being used in-field:

- Prosaro® 420 SC:



210 g ai/L prothioconazole + 210 g ai/L tebuconazole

MOA: Group 3 triazole

Rate: 375 mL – 450 mL/ha

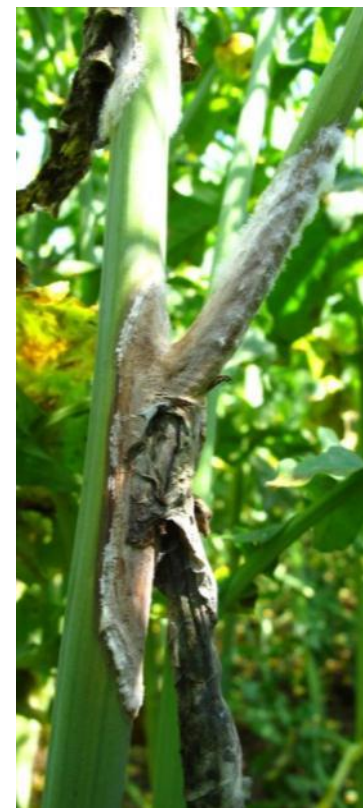
- Rovral® Liquid:



250 g ai/L iprodione

MOA: Group 2 dicarboxymide

Rate: 2 L/ha



Prosaro is a registered trademark of Bayer.

Assessment of flowering stages



Flowering stages should be assessed on the main stem:

10% = 10 flowers open

20% = 14-16 flowers open

30% = 20 or more flowers open

40% = 30 or more flowers open

50% = All flowers are open or have opened, crop is at its most intense yellow (full flower)

60% = Flowering intensity is beginning to decline



10% Bloom



20% Bloom



30% Bloom



50% Bloom



60% Bloom

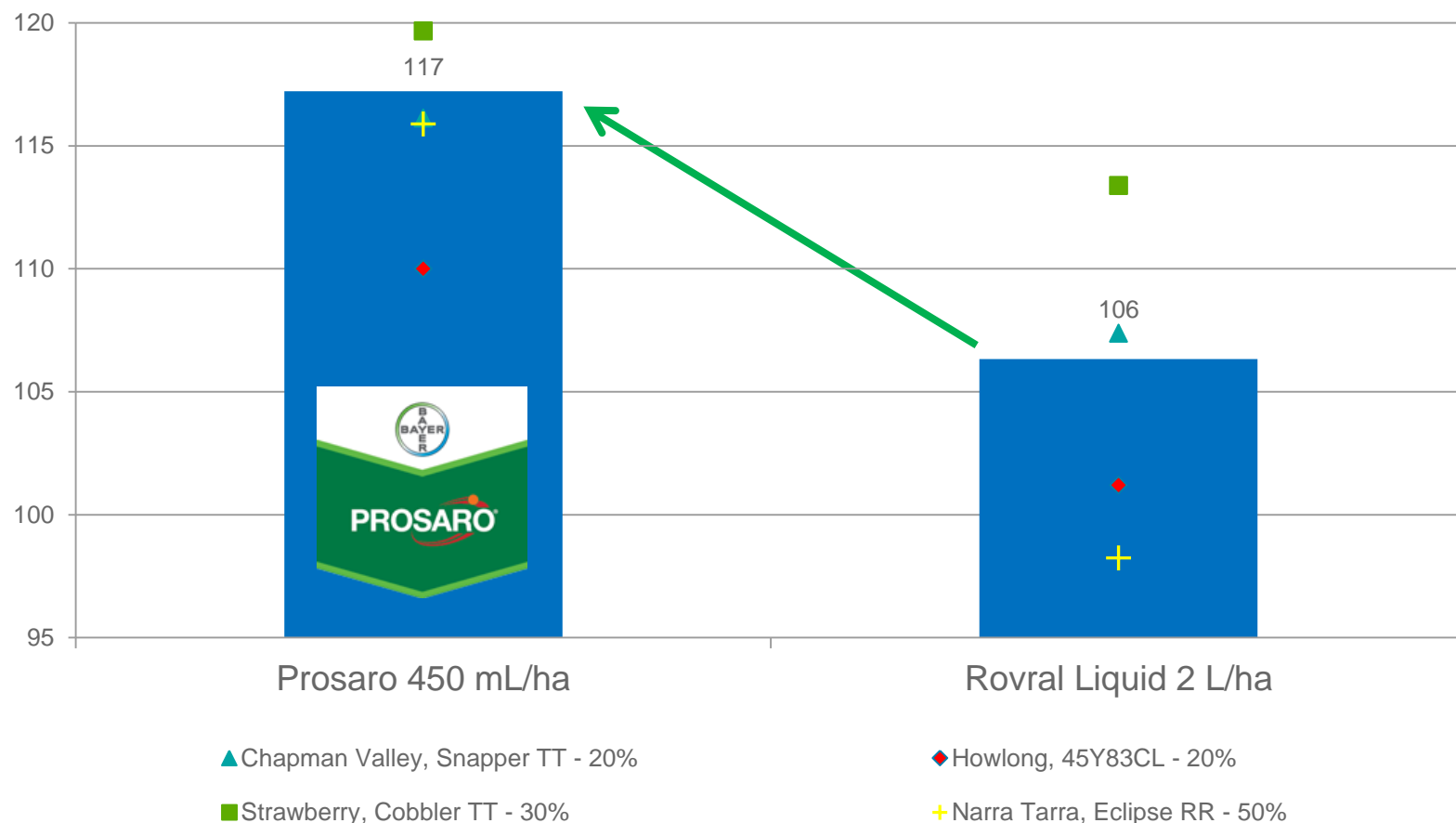




2011: PROSARO vs. ROVRAL direct comparison

Sclerotinia % yield increase over untreated (100% = 2.1 t/ha)

11% yield increase over Rovral Liquid, and ~17% over untreated.

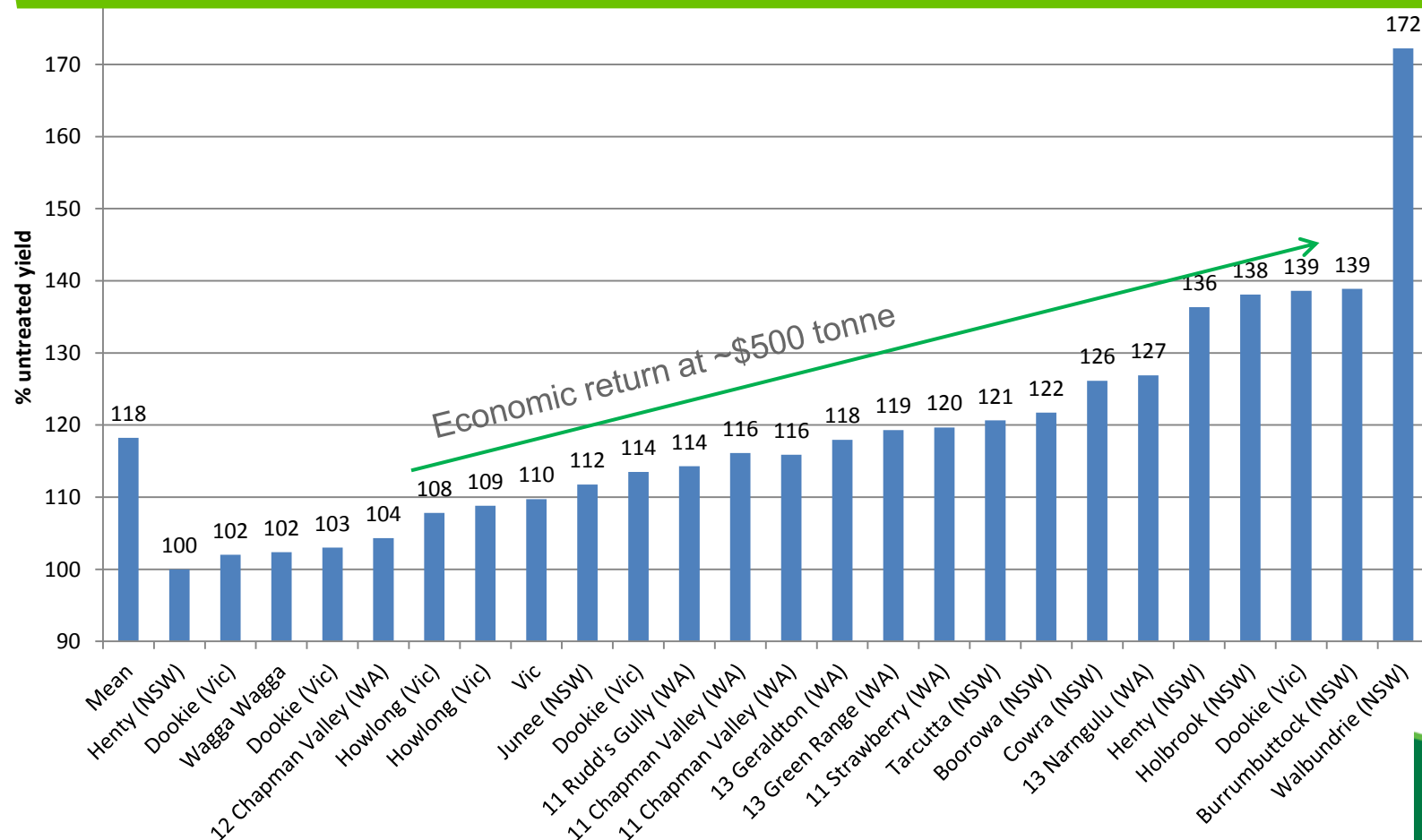




2011-13 Prosaro control of sclerotinia in canola

Average % yield increase over untreated (100% = 1.90 t/ha)

18% average yield increase (350 kg) over untreated across 25 commercial trials.



Spray timings – spray to the conditions

Prosaro yield response in the Midwest

13WE02: Control of Sclerotinia in Hyola 404RR, Narngulu, WA

Application (25/7) = 30% flower

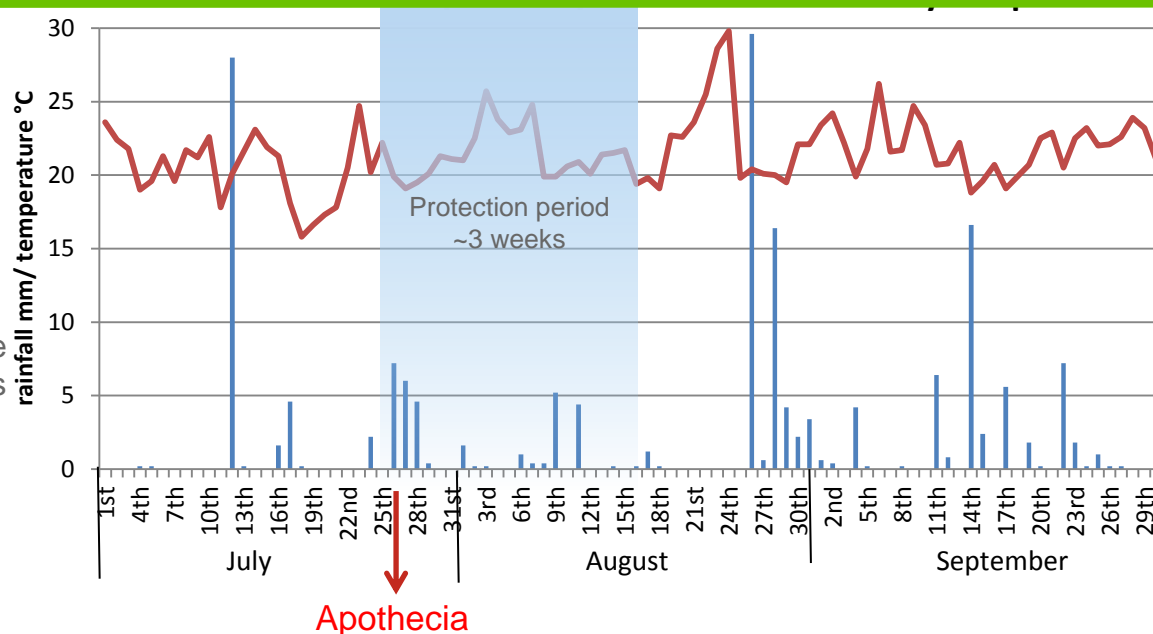


Prosaro significantly reduced disease severity and incidence to maintain yield potential.

Variety	Hyola 404RR
Flowering length	6-8 weeks
Yield t/ha response	320 kg/ha \$125.85 ROI

Key messages:

- Apothecia found on 25th July
- 30% spray resulted in 27% yield response
- 2 spray strategy starting at 30% ~3 weeks apart may have provided improved yield



Treatment	03/10/2013 % Incidence	t/ha	% untreated	Costs \$/ha	% Oil	gross \$/ha	ROI \$/ha	% Sclerotes by weight
Untreated	53 a	1.19	100		45.2	\$604.14		0.44
Prosaro 375 mL/ha	14 b	1.41	118	\$26.25	45.4	\$712.97	\$76.58	0.08
Prosaro 450 mL/ha	7 b	1.51	127	\$29.70	45.8	\$764.70	\$123.06	0.1

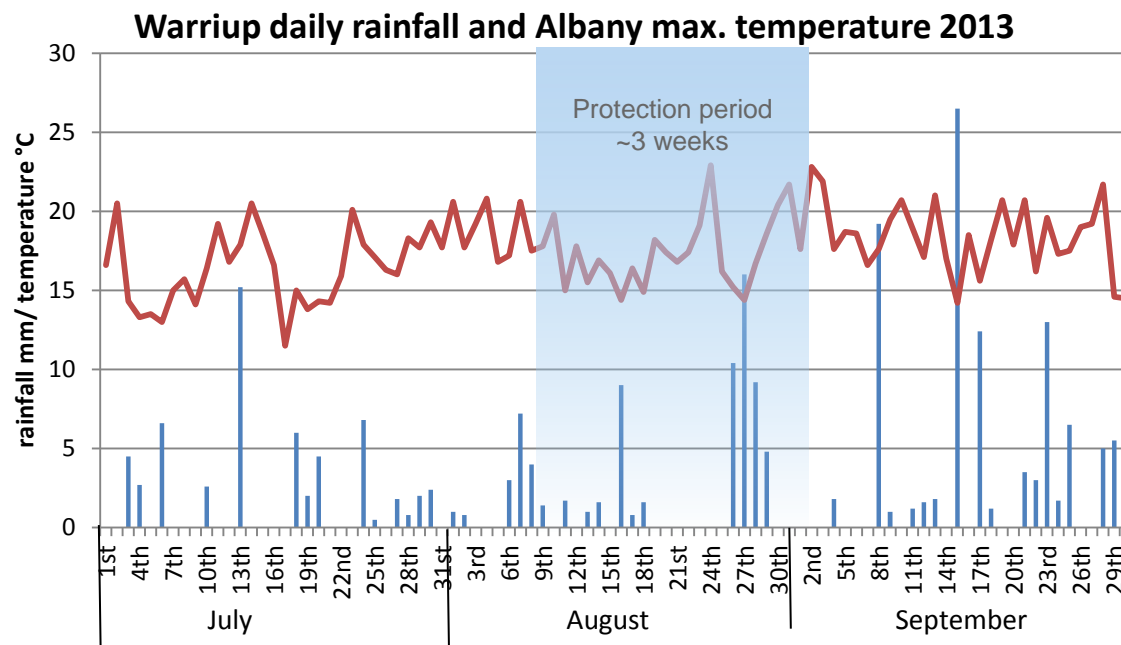
Spray timings – spray to the conditions
 Prosaro yield response in the Great Southern
 Hyola 404RR, Green Range, WA
 Application (9/8) = 40% flower



Location	Green Range
Variety	Hyola 404RR
Flowering length	6-8 weeks
Yield t/ha response	370 kg/ha \$143.06 ROI

Key messages:

- Active disease found 7/8
- 40% spray resulted in 19% yield response
- 2 spray strategy starting at 20% ~3 weeks apart may have provided improved yield



Untreated: 1.93 t/ha
 Prosaro 450 mL/ha: 2.30 t/ha



Fungicides: Getting the best results for sclerotinia in canola



The checklist:

Single spray:

- ✓ If opting for a single spray **don't apply too early**.
- ✓ The best timing is generally **~20-30% flowering** dependent on conditions.
- ✓ Later application at **30-50% timings can be beneficial** in longer seasons.

Other considerations:

- ✓ **Air / soil temperature and rainfall** are as important as flowering stage.
- ✓ Increased water rates are recommended – **100 L/ha+** is good.
- ✓ Faster growing plants will have a **shorter window of protection i.e. at 20%** compared to 40% flowering.



Multiple Sprays:

- ✓ **Longer flowering varieties may require 2 applications** under high disease pressure.
- ✓ Spray timings should consider **favourable conditions for disease development** not just crop stage.

Future developments:

- ✓ Bayer CropScience continues to evaluate new chemistry for sclerotinia control.

Canadian rule of thumb: For every % of plants infected = 0.5% yield loss





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Questions?

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