

Control weeds in your fence lines and stop herbicide resistance spread.

Sally Peltzer and members of the Esperance and
Northern Advisor Groups 25/2/2013

RESISTANCE



Group M



Group L



Group I

Australian Glyphosate Sustainability Working
Group/GRDC Project



NORTHERN GROUP

David Cameron, Geoff Fosbery, Peter Bostock, Helen Lethlean, John Even, Richard Quinlan, Erin Cahill, Bevan Addison, Peter Newman, Abul Hashem, Rick Horbury, Paul Chatsfield, Bill Campbell, Melissa Welsh, Clare Johnston, Chris O'Callaghan, Jon Hunt, Katherine Ayres



ESPERANCE GROUP



Eric Nankivell
Phil Smyth
Quenten Knight
Theo Oorschott
John Richardson
Brad Johnson
Peter Roberts
Greg Curnow
Chris Reichstein
Ben Curtis



GLYPHOSATE RESISTANCE IN ANNUAL RYEGRASS



36% of confirmed sites are from fencelines
and firebreaks





FENCELINES

Weeds can move
into cropping
fields taking their
resistance status
with them



Fenceline trials

- 13 herbicide treatment alternatives to glyphosate sprayed in August
- Either single knockdown herbicides (paraquat, Amitrole[®] T, glufosinate or Alliance[®])
- Or as a mixture of a residual herbicide and paraquat (or Alliance[®] - Esperance only)





ESPERANCE

Glyphosate-susceptible
annual ryegrass (Z30-31).

- Also barley grass, brome grass, capeweed, subclover.
- Some mallow, erodium, Guildford grass and hare's tail grass

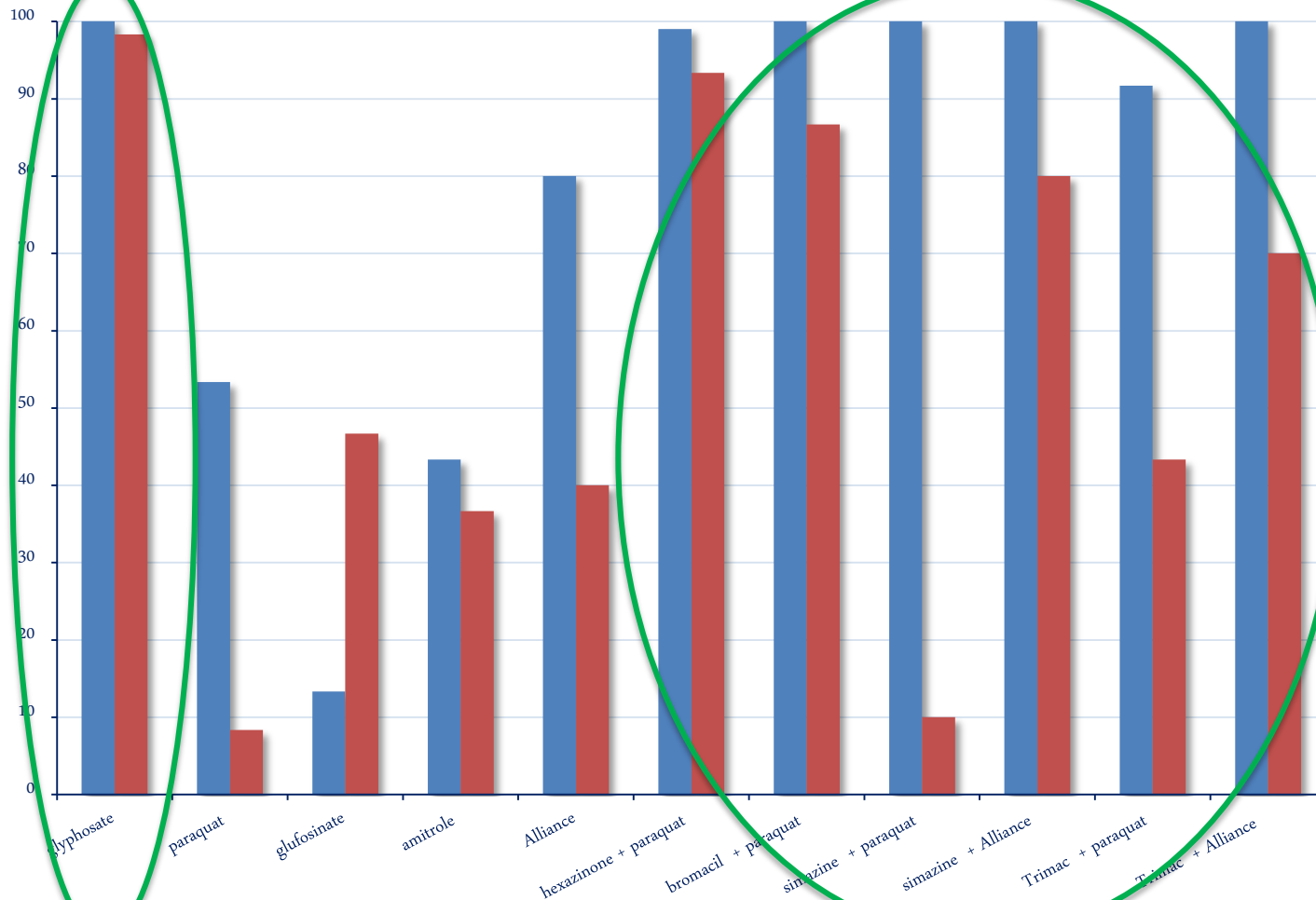


ESPERANCE

After 5 weeks

% Control 5 WAT

■ ARG
■ Broadleaf
weeds






hexazinone



bromacil



Trimac
(terbacil and
sulfometuron)

**With
paraquat**



simazine plus
paraquat



simazine plus
Alliance[®]

glyphosate at 5
weeks – Sept 11



glyphosate at
12 weeks – Oct
31



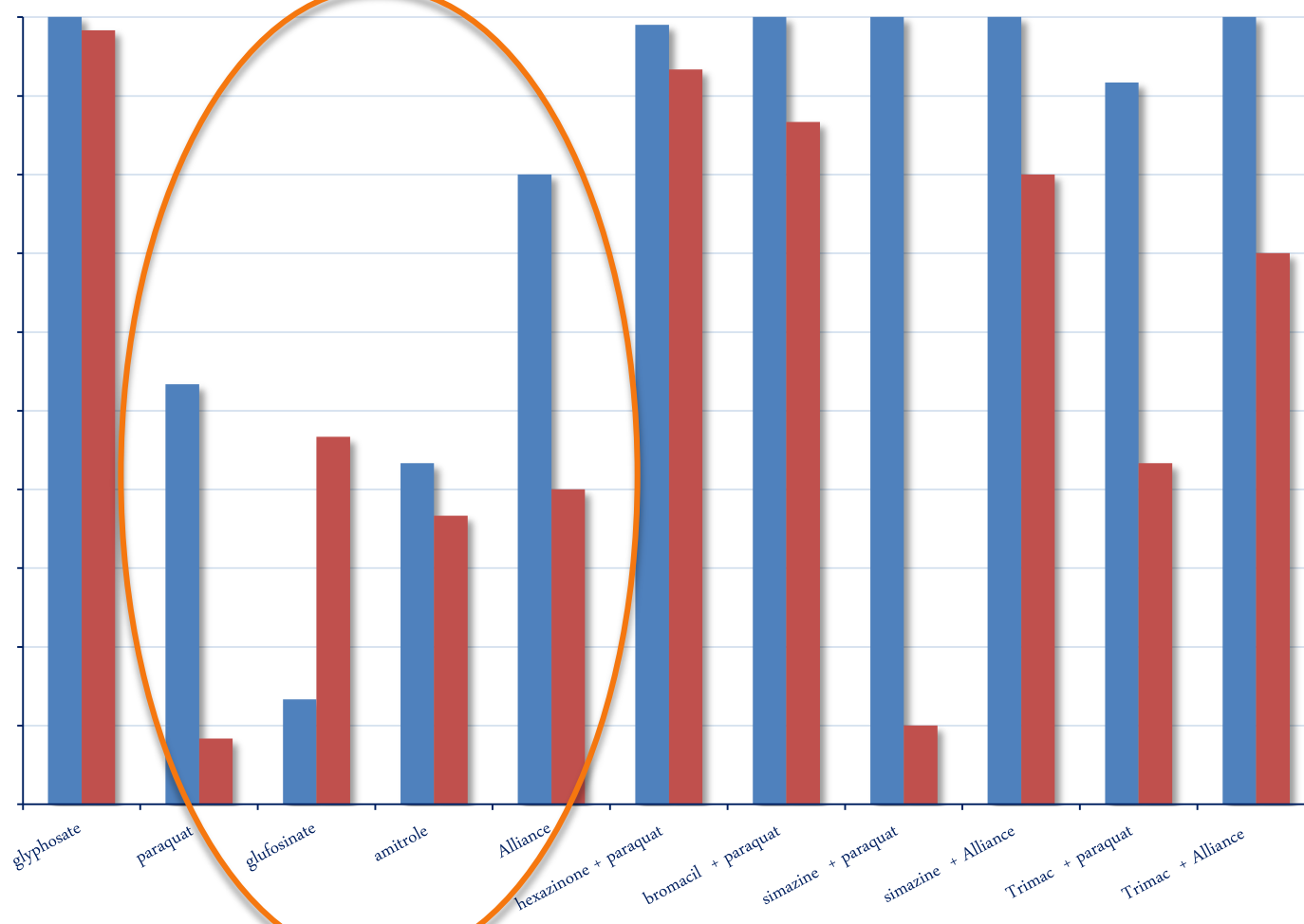
glyphosate at 24
weeks – Jan 14



ESPERANCE

After 5 weeks

% Control 5 WAT



■ ARG
■ Broadleaf
weeds





Alliance[®] at 5
weeks

Alliance[®] at 12
weeks



A photograph of a field of hare's tail grass (Lagurus ovatus) at 5 weeks. The grass is green and has small, upright, yellowish flower heads. A white box with a blue border is overlaid on the left side of the image, containing text. A small metal frame is visible in the lower-left corner of the image.

amitrole at 5
weeks – Sep
11

amitrole at 12
weeks – Oct 31

Lagurus ovatus
– hare's tail
grass



glufosinate at
5 weeks – Sep
11

DALWALLINU



Glyphosate-susceptible annual
ryegrass (3-4 leaf).

- Also wild radish and capeweed.

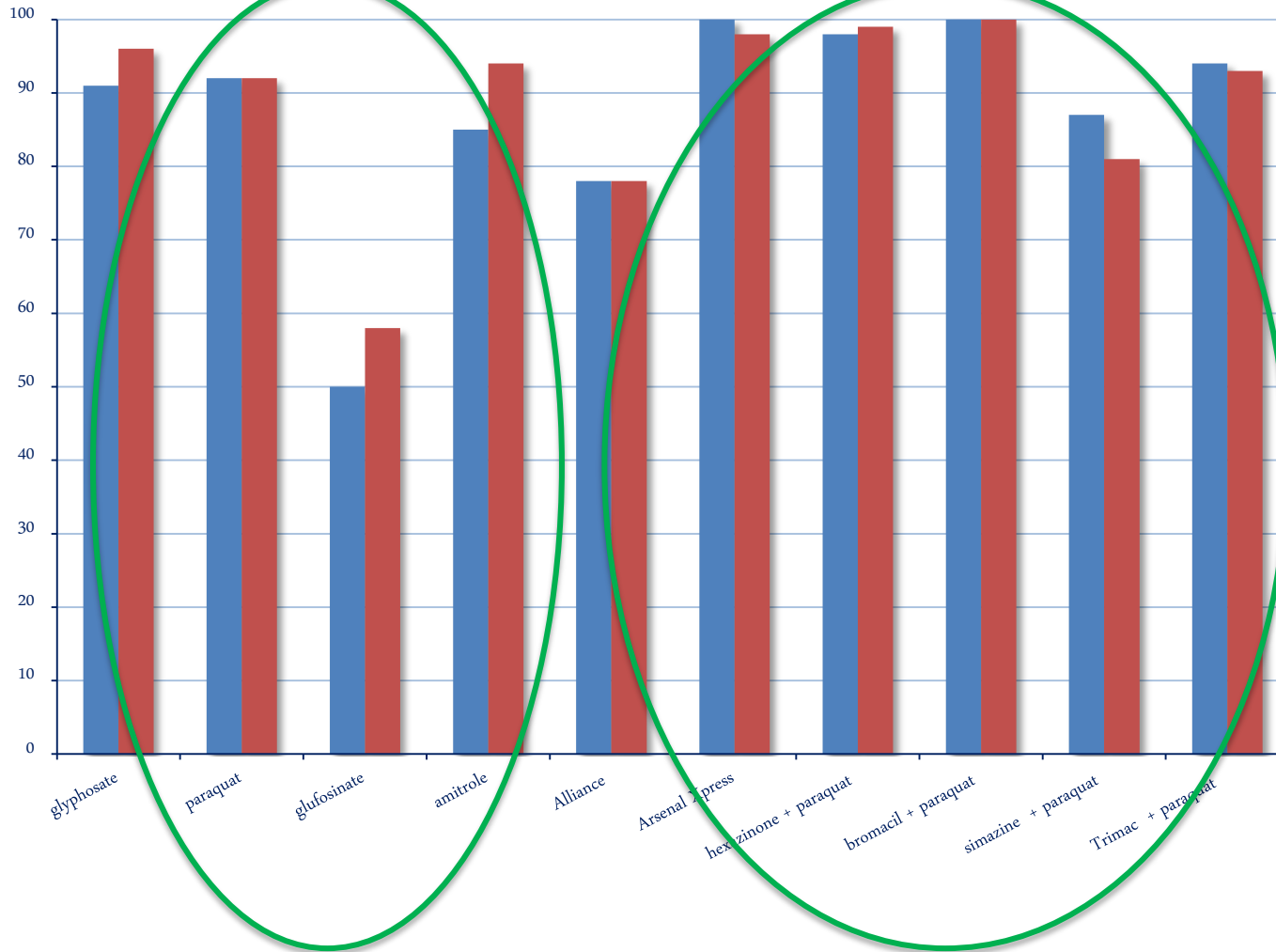


DALWALLINU

After 6 weeks

% control 6 WAT

ARG
Wild radish



How much do they cost?

TREATMENT	COST (\$/KM)
glyphosate	3
paraquat	5
Alliance®	18
hexazinone and paraquat	18
bromacil and paraquat	110
simazine and paraquat	11
simazine and Alliance® (amitrole and paraquat)	24
Trimac® (sulfometuron, terbacil) and paraquat	53
Trimac® and Alliance®	66

(\$/km based on a 3 m wide fenceline)





Key messages

- Effective herbicide options other than glyphosate are available to control weeds along fence lines and in non-crop areas
- A knockdown herbicide plus a residual gives flexibility of management
- Knockdown herbicides alone have shown good initial control however later germinations reduce their effectiveness



<http://www.agronomo.com.au/giving-a-rats/>



giving a RATS



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- Chris Matthews (DAFWA Esperance) and Dave Nicholson (DAFWA Geraldton) for spraying the trials
- Both 'Teams' for all their help



Department of
Agriculture and Food



GRDC Grains Research &
Development Corporation
Your GRDC working with you

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