

GRDC- EPARF Stubble Initiative



Herbicide efficacy trials 2015-17

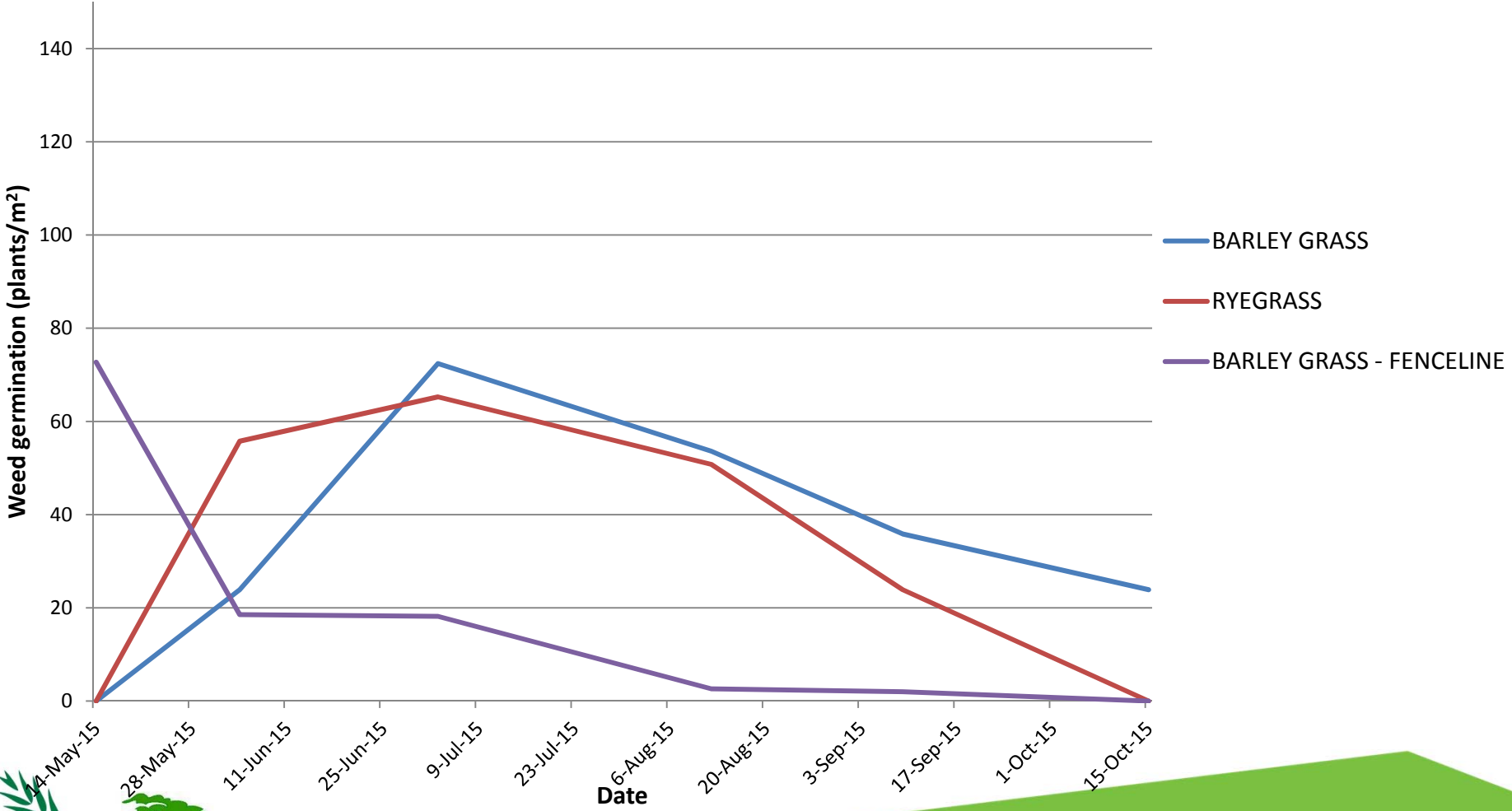
When using pre-emergent herbicide in stubble retained systems consider;

- soil moisture conditions and likely rainfall at application
- the mobility of the herbicide in soil water
- the persistence of the herbicide
- the susceptibility of the crop to the herbicide
- germination pattern of the target weeds – barley grass

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Timing of weed germination, Minnipa 2015 (Weed seed trays of Paddocks N1, N7/8, S4, S7 and Airport)



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Stubble Treatments

2015 Mace - 3.2 t/ha

- Stubble (5.9 t/ha) standing and residue spread out back of header
- Stubble standing and windrowed (burnt in April)
- Stubble removed by burning

2016 CL Grenade - 2.4 t/ha, grazed over summer so 1.5 t/ha stubble load

- Stubble standing
- Stubble slashed, both with burnt windrows



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Stubble Treatments

2017 Compass barley – 3.5 t/ha, grazed stubble load 3.2 t/ha in late April

- Stubble standing
- Stubble prickle chained

14 chemical treatments/mixes (pre and post emergent) - costs \$9-\$107/ha

Relatively low grass weed populations

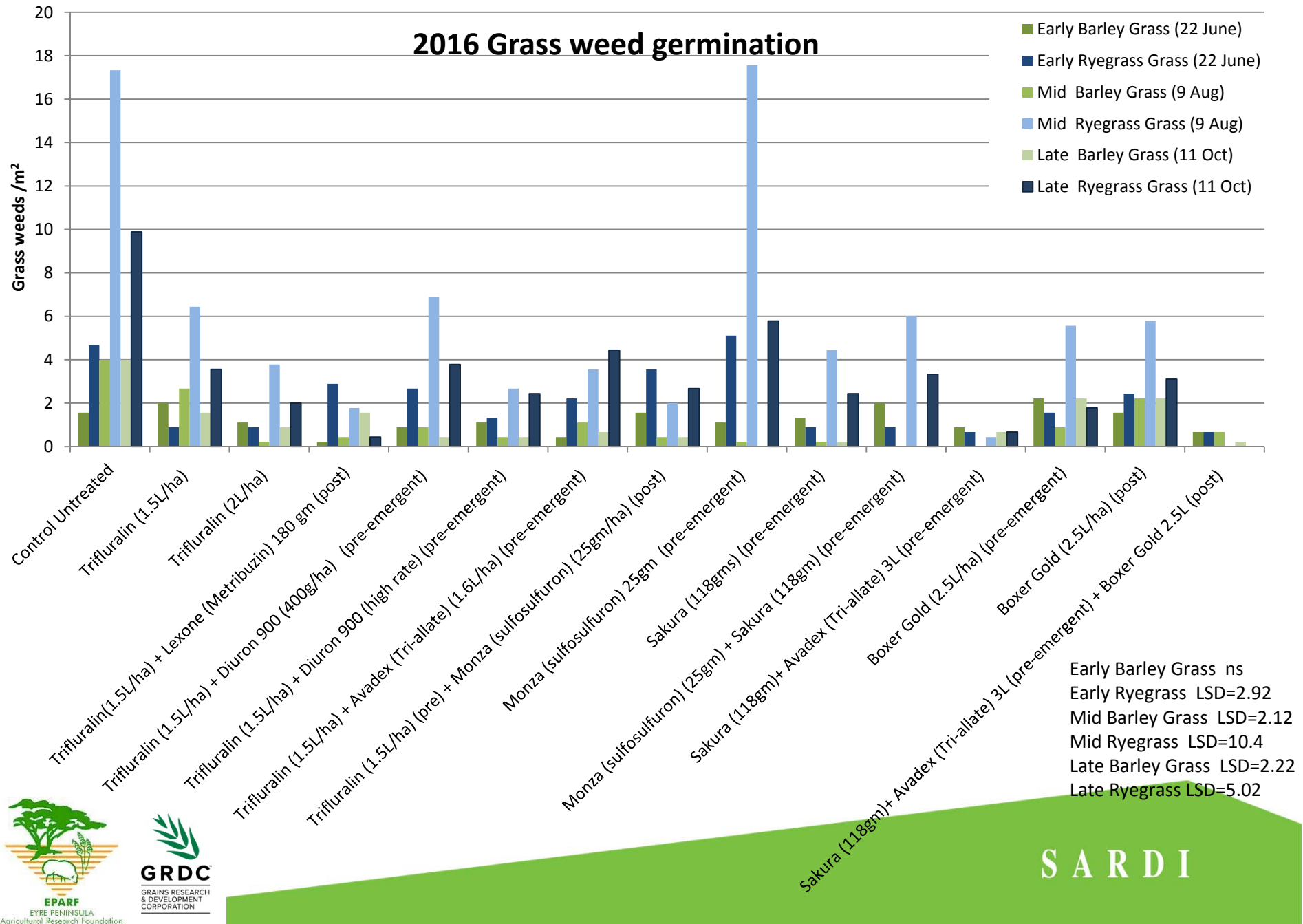
No interactions between stubble load and individual herbicides in 2015-16

No differences stubble load and coverage using spray cards 2017



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Herbicide efficacy trial



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Herbicide efficacy trial

- Most herbicides are providing better weed management than the control.
- In-crop germination patterns are later for barley grass than for other grass weeds in MAC paddocks, which is limiting early control with pre-emergence herbicides.
- If grass weeds emerge straight after sowing maybe 1.5 - 2 L/ha trifluralin (plus an added herbicide, depending on cost and seasonal conditions) is the best value for your system.
- If you have a later germinating population, and aim to reduce the seed bank, you may be better investing in some of the more expensive herbicide mixes even though they may cost more in the first season.



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