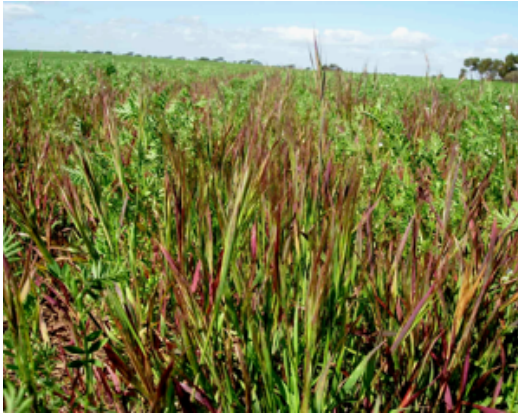




Fact Sheet

Brome Grass: Herbicide Trials



Why is Brome Grass a problem?

- Development of herbicide resistant populations
- No-Till has favoured development of brome grass – no pre-sow cultivation
- Timing of effective spray topping can be problematic
- Vigorous root system competes with crop for nitrogen and carries over root diseases
- Seed heads irritable to sheep and contaminate wool

Recent results from Grain & Graze 2 funded herbicide trials on Brome Grass control from Chris Davey and the Northern Sustainable Soils Farmer Group:

Summary of Brome Grass weed control assessment in barley					Summary of barley yield assessments				
Trt. No.	Treatment /ha.	*ARG plants /m ² 7th June	*Brome plants /m ² 7th June	ARG final control 1-10 7th Oct	Brome final control 1-10 7th Oct	Trt. No.	Treatment /ha.	Yield T/ha	Yield % of T6
1	UTC	50 d	22 b	4.8 c	6.8 c	1	UTC	1.74 c	108
2	Boxer Gold @2500ml	6 ab	10 ab	1.5 a	1.8 ab	2	Boxer Gold @2500ml	1.80 c	111
3	Sakura @ 118gms	10 ab	4 a	1.3 a	1.5 ab	3	Sakura @ 118gms	1.77 c	109
4	Sakura + Triflur @ 118gms + 1000ml	13 abc	12 ab	1.5 a	2.3 ab	4	Sakura + Triflur @ 118gms + 1000ml	2.05 ab	127
5	Sakura + Avadex @ 118gms + 1600ml	13 abc	13 ab	1.8 a	2.8 b	5	Sakura + Avadex @ 118gms + 1600ml	2.04 ab	126
6	Triflur + Avadex @ 2000 + 2000ml	12abc	16 ab	3.3 b	5.5 c	6	Triflur + Avadex @ 2000 + 2000ml	1.61 c	100
7	Triflur + Metribuzin @ 1500 + 200gms f.b.					7	Triflur + Metribuzin @ 1500 + 200gms f.b.		
	Metribuzin @ 180gms (Z21)	8 ab	13 ab	1.0 a	1.5 ab	7	Metribuzin @ 180gms (Z21)	1.83 bc	114
8	Triflur @ 1500ml f.b. Intervix @ 750ml	25 bc	19 ab	1.0 a	1.0 a	8	Triflur @ 1500ml f.b. Intervix @ 750ml	2.11 a	131
9	Triflur @ 1500ml f.b. Metribuzin @ 360gms	29 c	16 a	1.3 a	1.0 a	9	Triflur @ 1500ml f.b. Metribuzin @ 360gms	2.11 a	131
Co-efficient of variation		0.85	95%	58%	52%	Co-efficient of variation		11%	
LSD 5%		18	15	1.3	1.5	LSD 5%		0.23	

Summary of Brome Grass weed control assessment in wheat					Summary of wheat yield assessments				
Trt. No.	Treatment /ha.	*ARG plants /m ² 7th June	*Brome plants /m ² 7th June	ARG final control 1-10 7th Oct	Brome final control 1-10 7th Oct	Trt. No.	Treatment /ha.	Yield T/ha	Yield % of T6
1	UTC	73 b	65 b	8.3 c	8.3 d	1	UTC	1.67 c	95
2	Boxer Gold @ 2500ml	17 a	23 a	4.0 a	4.8 b	2	Boxer Gold @ 2500ml	1.95 ab	110
3	Sakura @ 118gms	16 a	12 a	1.8 a	2.0 a	3	Sakura @ 118gms	2.06 a	117
4	Sakura + Triflur @ 118gms + 1000ml	9 a	14 a	2.0 a	1.3 a	4	Sakura + Triflur @ 118gms + 1000ml	1.98 a	112
5	Sakura + Avadex @ 118gms + 1600ml	13 a	12 a	2.0 a	1.8 a	5	Sakura + Avadex @ 118gms + 1600ml	2.09 a	119
6	Triflur + Avadex @ 2000 + 2000ml	19 a	21 a	4.8 b	6.0 c	6	Triflur + Avadex @ 2000 + 2000ml	1.77 bc	100
7	Triflur @ 1500ml f.b. Crusader @ 500ml	54 b	12 a	5.0 b	3.0 ab	7	Triflur @ 1500ml f.b. Crusader @ 500ml	1.77 bc	100
8	Triflur @ 1500ml f.b. Atlantis @ 330ml	59 b	21 a	5.3 b	6.0 c	8	Triflur @ 1500ml f.b. Atlantis @ 330ml	1.99 a	113
9	Triflur @ 1500ml f.b. Intervix @ 750ml	54 b	23 a	2.8 a	1.5a	9	Triflur @ 1500ml f.b. Intervix @ 750ml	1.97 ab	112
Co-efficient of variation		82%	142%	45%	56%	Co-efficient of variation		9.4%	
LSD 5%		27	23	1.8	2.1	LSD 5%		0.2	

• Greyed boxes indicated treatments not registered and included for trial purposes only.

• Means followed by the same letter do not differ significantly.

• *Post emergent treatments were applied on the same day as the brome grass counts were taken, thus no effect was registered at this point in time.

• f.b. = followed by

- Pre-emergent herbicides provide relatively low levels of control. The best was Sakura® and even that was only offering between 60-80% control.
- Clearfield crops using Intervix® achieved good control but may increase the likelihood of Group B resistance
- Some brome grass populations are already resistant to Group A (Fops and Dims) and Group D (trifluralin) herbicides.
- Integrated Weed Management is essential for Brome Grass control (see fact sheet on Brome Grass: Integrated Weed Management)
- Trials are continuing