BROME GRASS CONTROL.

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AIM

To assess the new herbicide Sakura on Brome grass control/ suppression in wheat.

BACKGROUND

Sakura is a new pre-emergent herbicide developed by Bayer for release to the market for the control of annual ryegrass in wheat and barley. No claim is made for Sakura as to control or suppression of Brome. However, Brome is a seasonal issue and control is required along with Annual ryegrass which is becoming more resistant to herbicides. How effective are the newer pre emergent herbicides at suppressing Brome? Post emergent Monza is regarded as the most effective product for controlling Brome grass early in the season while Crusader and Atlantis aim for a later window, although Atlantis is only for suppression of Brome.

TRIAL DETAILS

	Site 1
Property	Rhys Carson, Sudlow Road, Binnu
Plot size & replication	10 x 3m, 3 replicates
Soil type	Red sand
Sowing date	01,06,10
Seeding rate	Magenta @ 70 kg
Fertiliser (kg/ha)	Agflow 30 10kg, Humates, 40 kg SOA 25 MOP
Paddock rotation	Wheat on wheat
Herbicides	Roundup 1.8 litres applied 01,06,10 Sniper 02,07,10
Growing Season Rainfall	May to October 185 ml

TRIAL DESIGN.

Treatment #	**Pre Emergent Treatment**	**Late Post Emergent Treatment (3-4 leaf)**
2	Trifluralin @ 2ltr	
1	Control	
3	Sakura @ 118gm/ha	
4	Boxer Gold @ 2.5 ltr	
5	Trifluralin @ 2ltr Monza @ 25gm	
6	Trifluralin @ 2ltr Crusader @ 500ml	
7	Trifluralin @ 2ltr Atlantis @ 330ml	
8	Sakura @ 118gm/ha Metribuzin @ 150gm	
9		Boxer Gold @ 2.5 ltr
10		Boxer Gold @ 5 ltr
11		Atlantis @ 500 ml
12		Sakura @ 118 gm
13		Monza @ 25gm + 1% Bonza
14		Crusader @ 500ml + 0.25%BS1000
15		Atlantis @ 330ml + 1% Hasten
16		Crusader (new) @ 500ml

COMMENTS

Plots 1-8 sprayed 01,06,10
Plots 13-16 excl 14 sprayed 02,07,10
Plots 9-12 & 14 sprayed 05,07,10

RESULTS

TABLE 1: PRE EMERGENT PLOT COUNTS AND YIELD RESULTS

Treatment	Brome/m² 28,06,10	Brome/m² 28,10,10	Harvest Yield t/ha
Control	346	308	1.16
Trifluralin @ 2 L	97	270	1.17
Sakura @ 118 g	48	101	1.40
Boxer Gold @ 2.5 L	196	270	1.18
Trifluralin @ 2 L Monza @ 25g	171	111	1.37
Trifluralin @ 2 L Crusader @ 500 ml	277	273	1.11
Trifluralin @ 2 L Atlantis @ 330 ml	327	361	0.99
Sakura@ 118 g Metribuzin@150 g	128	217	1.02
p-value	*0.005*	*0.09*	
5% LSD	*181.5*	*203.5*	

GRAPH 1: PRE EMERGENT BROME GRASS COUNTS AT 2 TIMINGS AS A % OF CONTROL AND YIELD

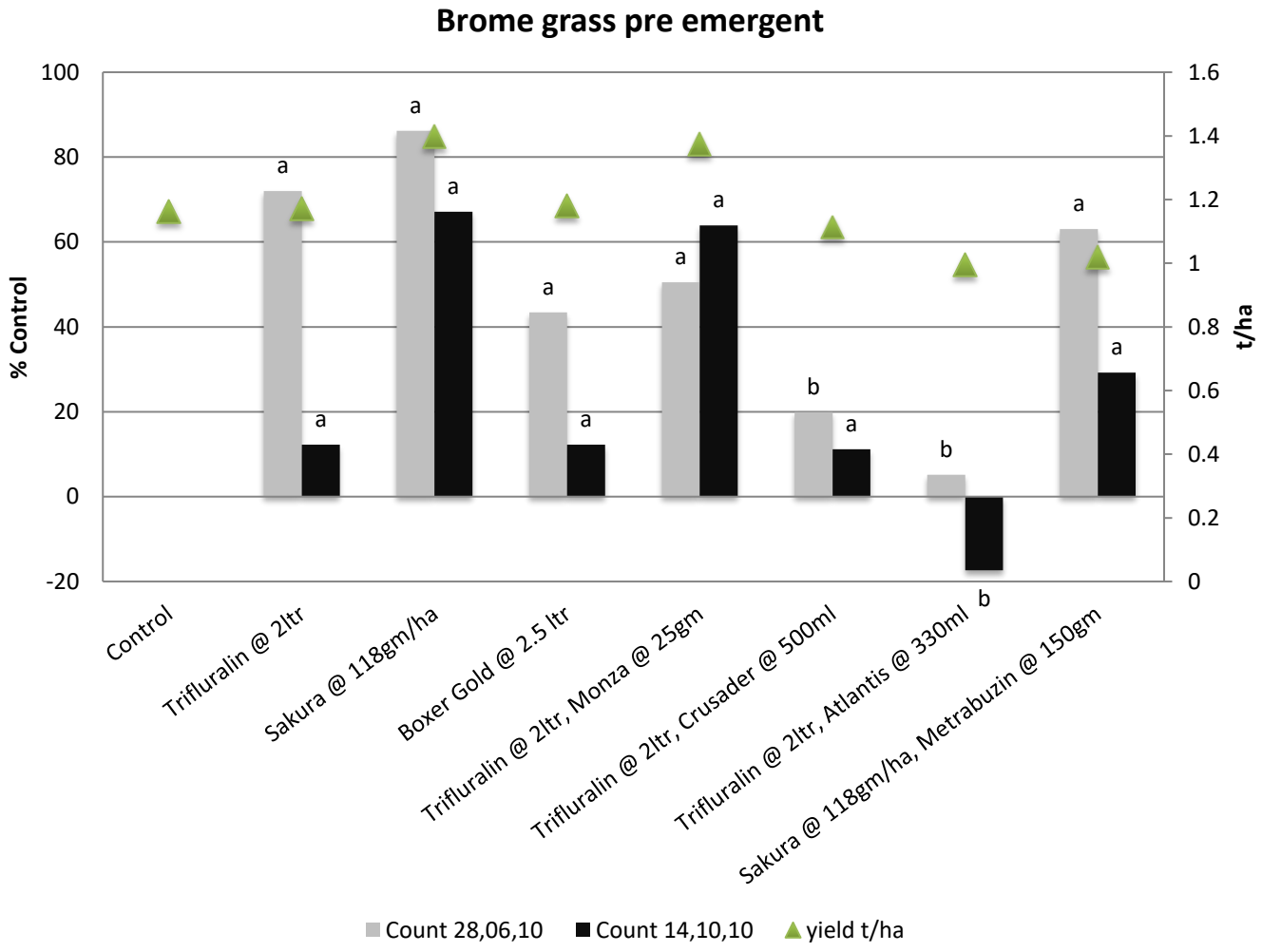
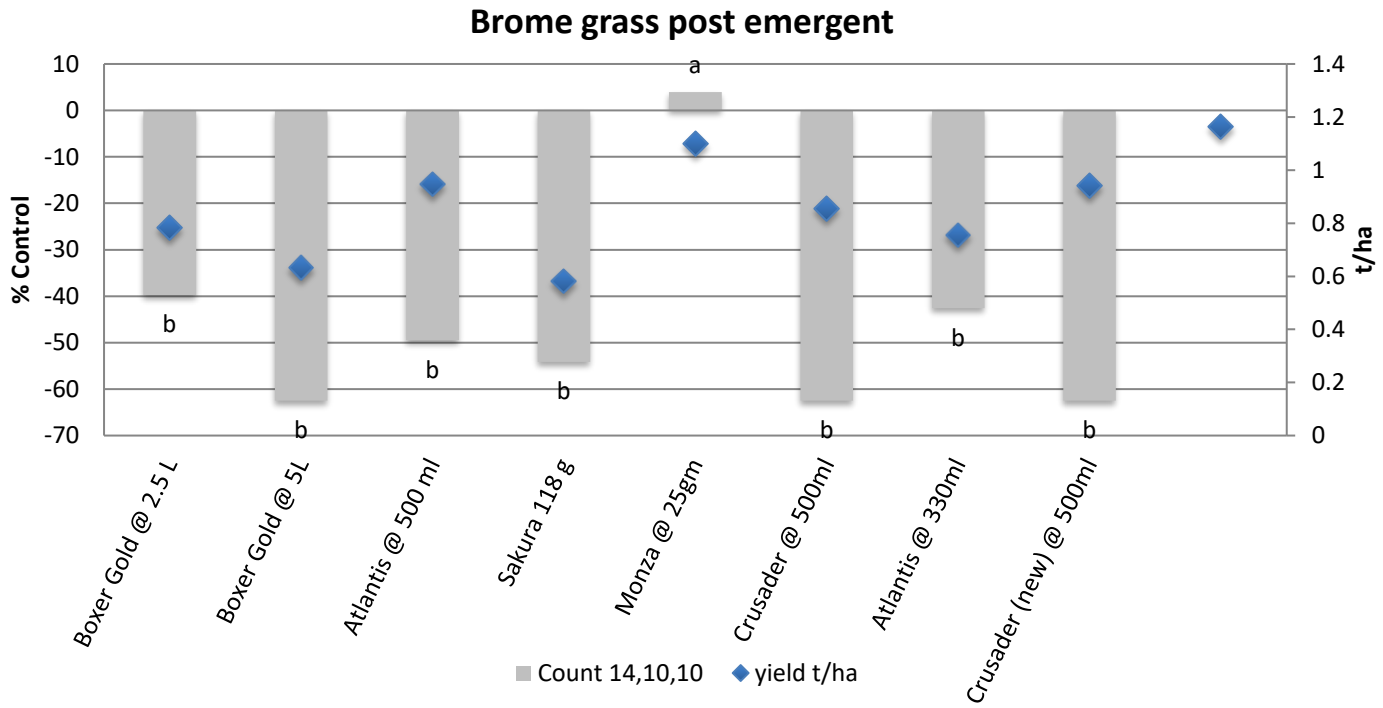


TABLE 2: POST EMERGENT PLOT COUNTS AND YIELD RESULTS

Treatment	Brome/m² 28,10,10	Harvest Yield t/ha
Control	308	1.16
Boxer Gold @ 2.5 ltr	430	0.78
Boxer Gold @ 5 ltr	500	0.63
Atlantis @ 500 ml	460	0.95
Sakura @ 118 gm	474	0.58
Monza @ 25gm + 1% Bonza	296	1.10
Crusader @ 500ml + 0.25%BS1000	500	0.85
Atlantis @ 330ml + 1% Hasten	439	0.76
Crusader (new) @ 500ml	500	0.94
p-value	*0.0009*	
5% LSD	*115.5*	

GRAPH 2: POST EMERGENT BROME GRASS COUNT AS A % OF CONTROL AND YIELD



DISCUSSION

This was a heavily infested brome site which had below average rainfall during the growing season and no finishing rains. In the pre emergent trial Sakura outperformed the other treatments both in the first count 28 days after seeding and the second count at 132 days after seeding. Trifluralin is still working on this site as indicated in graph 1 with the first count, but as is the norm it lost its efficacy as the season progressed. Boxer Gold struggled to control the brome, but neither of the herbicides are registered as having brome control. Trifluralin is registered as suppression at higher rates. All of the treatments apart from the two that contained Crusader and Atlantis have no significant difference between the results. It was expected that the Crusader and Atlantis products would struggle in minimal rainfall as these are post emergent chemicals and Atlantis only claims suppression of Brome.

In the post emergent trial Monza was the only treatment that performed better than control primarily due to the residual control properties. There was a rainfall event in August which caused subsequent germinations of Brome grass influencing the results in favour of treatments that had residual control properties. Due to these subsequent germinations there was no significant difference between any of the other treatments.

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