

## 'Group G Herbicide Trial'



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### Key Outcomes:

- There are several Group G herbicide spikes on the market for use prior to broadacre crops with their specific benefits and limitations
- It important to read the herbicide label and be aware of plant back restrictions before the use of any herbicide.
- Sharpen Group G herbicide significantly increased percentage of brown out across the weed spectrum 7 DAA at Frances in 2012.
- At Frances in 2012 all Group G herbicides showed increased percentage of brown out 7 DAA on annual ryegrass but there was no significant difference between treatments 22 DAA.
- Sharpen, Hammer 400 and Valour significantly increased percentage brown out 22 DAA on clover at Frances in 2012.
- At Frances in 2012 the results indicated Glyphosate was providing majority control of lesser loosestrife.
- Sharpen Herbicide showed a significantly increase in brownout on capeweed 7 DAA at Frances in 2012.

**Trial Objectives:** To evaluate a range of Group G herbicide 'spikes' to better understand there market fit prior to sowing broadacre crops.

**Situation:** Knockdown Prior to Sowing

**Trial Duration:** October 2012

**Location:** Frances, South Australia. **Farmer Co-operators:** Chris and Tim Fry  
Conmurra, South Australia Lachie Seears

**Type of Trial :** Frances - Replicated Plot Trial (Randomised block, 4 replicates) 10m x 2m  
Conmurra – Demonstration Only

**Application Date:** 16/10/2012

**Application Date:** 17/10/2012 and 23/10/2012

### Rainfall Data:

Rain	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	April-Oct	Total
Conmurra (NRM)	9	7	34	39	51	151	71	121	42	39	29	11	514	604
Frances (NRM)	20	1.6	40	17	37	88	53	77	45	26	15	15.2	343	435

Application Number	T1	Weather		Crop at Application		Soil At Application	
Date	16/10/2012	Temperature (°C)	17	Crop Stage	Fallow	Soil Moisture -surface	Moist
Time	7.50 am	Relative Humidity (%)	74.9	Leaf Condition	Wet	Soil Moisture - sub-surface	Moist
Experimenter	Nic Amos	Wind Speed (km/h)	2.8	Frost	No		
Treatments applied	2-12	Wind Direction	W				
		Cloud Cover (%)	100				

### ***Treatments:***

Weed Spectrum, stage and density was assessed prior to application see Table 1 and 2 and Picture 1.

**Table 1: Frances Weed Spectrum, stage and density 16/10/2012**



Percentage Brown out of weed spectrum was Visually assessed at 7, 14 and 22 Days after application at the Frances site and 6 and 14 days after application at Conmurra.

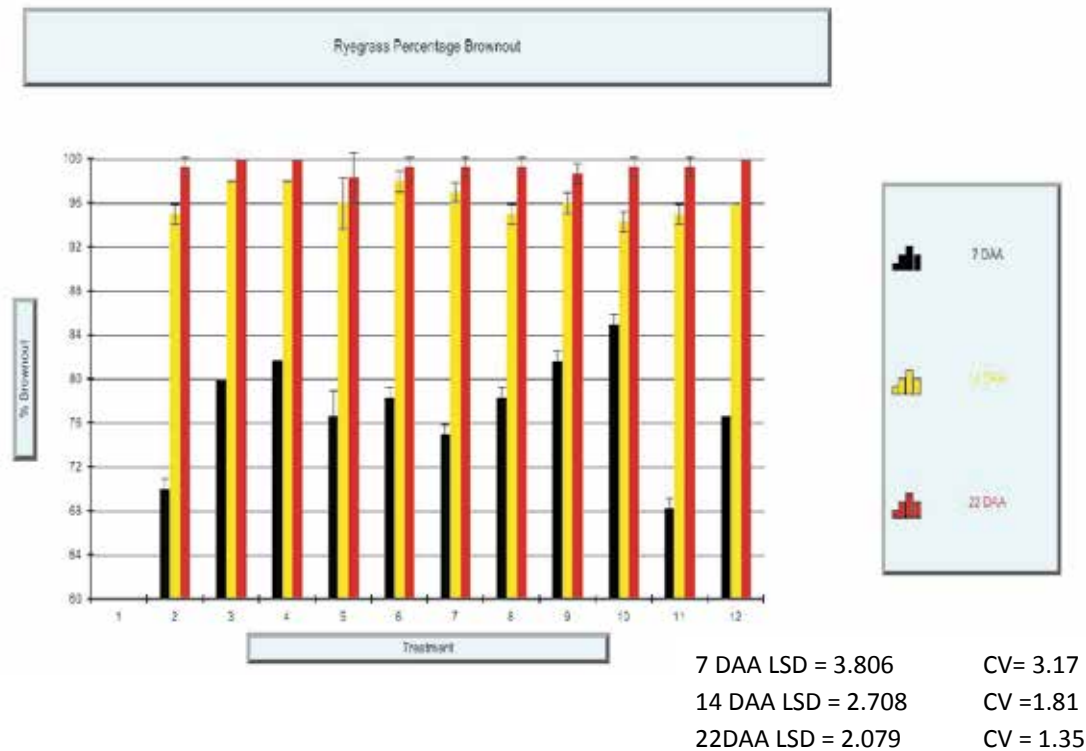
Individual treatments, Table 3 at both the Frances Trial and Conmurra demonstration plots were sprayed with a hand boom at 80L/ha water volume using 11015 airmix nozzles with managed by Kalyx Australia Pty Ltd on behalf of Elders as per usual agronomic treatment.

**Table 3: France and Conmurra Treatment Lists**

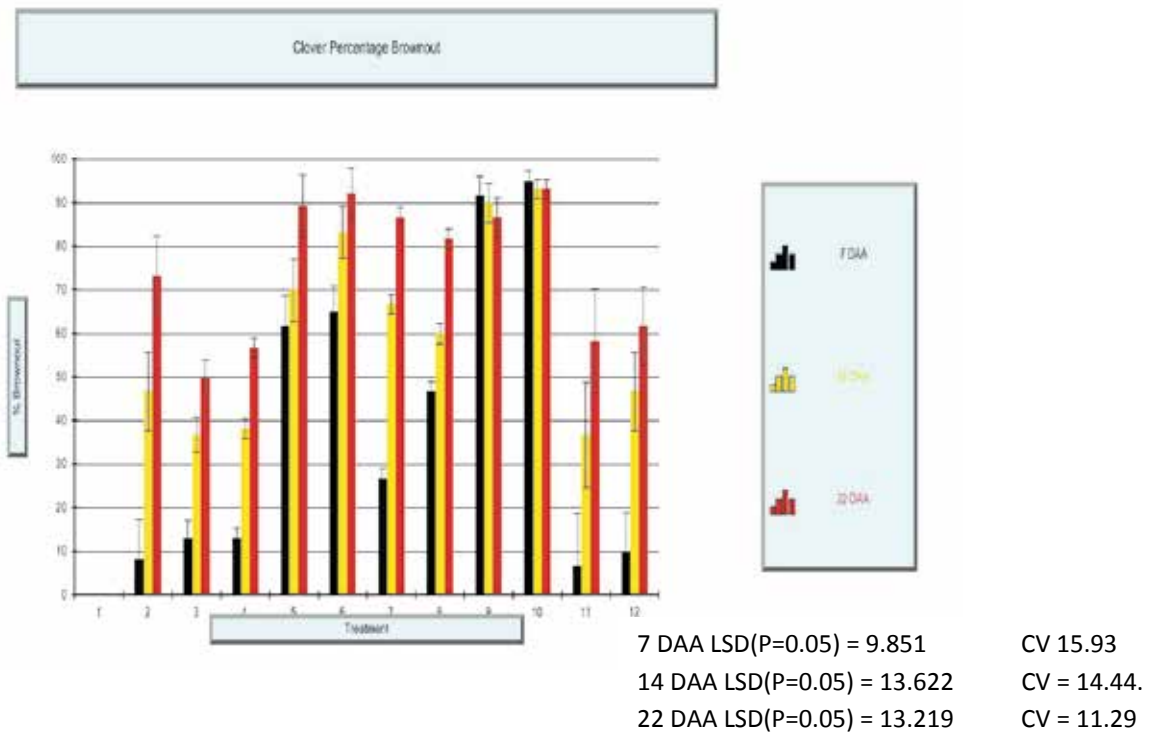
No.	Treatment	Form Type	Rate	Unit
1	Untreated			
2	Glyphosate 540	EC	1600	ml/ha
3	Goal	EC	80	ml/ha
	Glyphosate 540	EC	1000	ml/ha
4	Goal	EC	150	ml/ha
	Glyphosate	EC	1000	ml/ha
5	Hammer	EC	15	ml/ha
	Glyphoste 540	EC	1000	ml/ha
6	Hammer	EC	30	ml/ha
	Glyphoste 540	EC	1000	ml/ha
7	Valor	WDG	15	g/ha
	Kwicken	EC	0.5	% v/v
	Glyphosate 540	EC	1000	ml/ha
8	Valor	WDG	30	g/ha
	Kwicken	EC	0.5	% v/v
	Glyphosate 540	EC	1000	ml/ha
9	Sharpen	WDG	9	g/ha
	Kwicken	EC	0.5	% v/v
	Glyphoste 540	EC	1000	ml/ha
10	Sharpen	WDG	26	g/ha
	Kwicken	EC	0.5	% v/v
	Glyphoste 540	EC	1000	ml/ha
11	Ecopar	EC	100	ml/ha
	Glyphosate	EC	1000	ml/ha
12	Ecopar	EC	200	ml/ha
	Glyphoste 540	EC	1000	ml/ha

## Results:

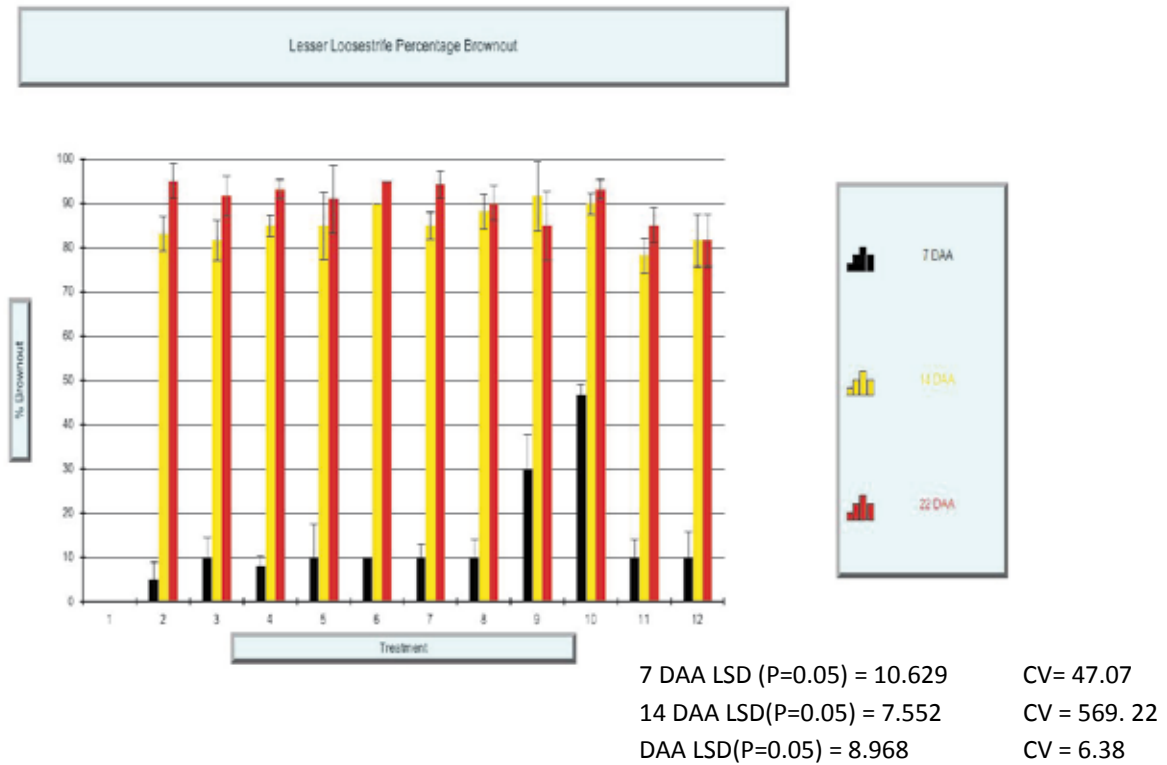
Graph 1: Ryegrass Percentage Brownout



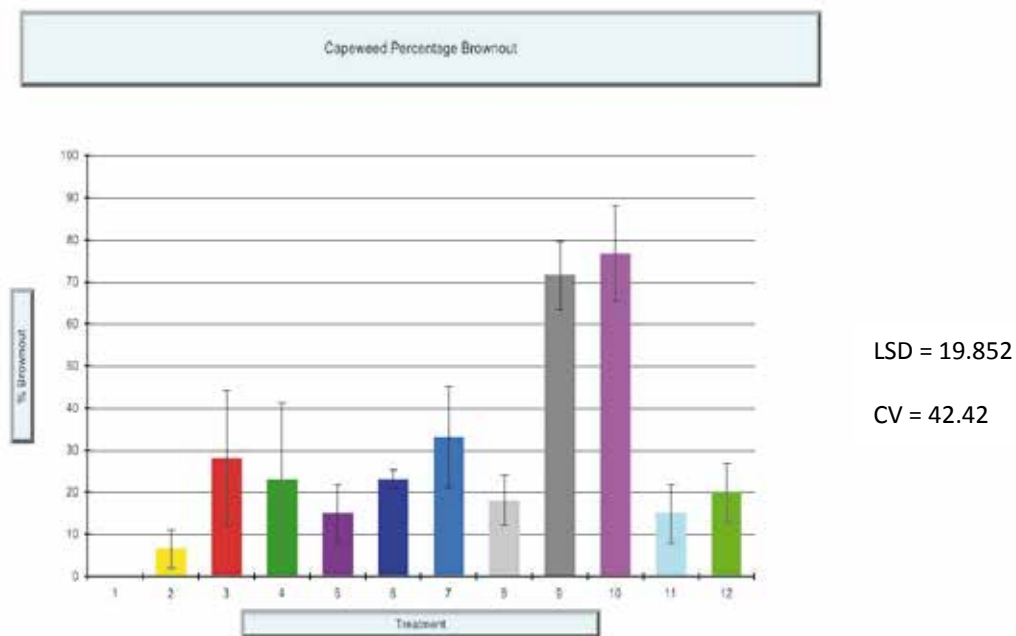
Graph 2: Clover Percentage Brownout



**Graph 3: Lesser Loosestrife Percentage Brownout**



**Graph 4: Capeweed percentage control 7 DAA.**



**Picture 1 – 12: Frances Trial Site 7 days After Application**



**1. Untreated Control**



**2. Glyphosate 540 1600ml/ha**



**3. Glypho 540 1000ml/ha + Goal 80ml/ha**



**4. Glypho 540 1000ml/ha + Goal 150ml/ha**



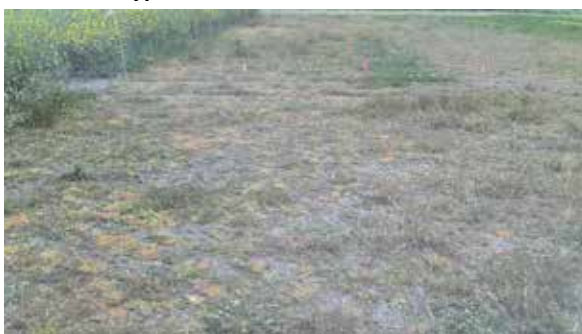
**5. Glypho 540 1000ml/ha + Hammer 15ml/ha**



**6. Glypho 540 1000ml/ha + Hammer 30ml/ha**



**7. Glypho 540 1000ml/ha + Valor 15g/ha**



**8. Glypho 540 1000ml/ha + Valor 30g/ha**





9. Glypho 540 1000ml/ha + Sharpen 9g/ha



10. Glypho 540 1000ml/ha + Sharpen 26g/ha



11. Glypho 540 1000ml/ha + Ecopar 100ml/ha



12. Glypho 540 1000ml/ha + Ecopar 200ml/ha

### **Comments:**

Group G herbicides spikes have been used in broadacre cropping for many years to increase brownout time and weed spectrum. This trial showed significant differences in percentage brown out between treatments and weed spectrum at 7 days after application (DAA).

Sharpen at 9g/ha and 26g/ha had significantly higher percentage brown out across the entire weed spectrum at 7 DAA at the Frances site. Understandably glyphosate 540 at 1600ml/ha had significantly lower percentage brown out 7 DAA while Ecopar at the 100ml/ha rate also showed significantly low brown out on ryegrass, clover and lesser loosestrife at this timing.

#### **Annual Ryegrass Control.**

While Sharpen at 9 and 26gm/ha showed significantly higher percentage brown out on annual ryegrass at 7 DAA, at 14 DAA Goal at 80ml/ha and 150ml/ha and

Hammer 30ml/ha showed significantly higher percentage brown out. There were no significant differences between treatments at 22 DAA.

Therefore although individual treatments showed significant differences in percentage brownout at 7 and 14 DAA there was no reduction in annual ryegrass control between products as all achieved above 99% brown out by 22 DAA.

#### **Clover Control**

Again sharpen at the 9 and 26gm/ha rates showed significantly higher percentage brownout 7 DAA and also 14 DAA. At 22 DAA Hammer at 15ml/ha and 30ml/ha, valour at 15ml/ha and Sharpen all showed significantly higher brownout of clover.

Ecopar, Goal at both rates and Glyphosate alone showed unacceptable levels of brown out 22 DAA and it would be suggested that these products not be recommended for clover control prior to sowing broadacre crops.

#### **Lesser Loosestrife Control.**

All treatments showed less than 50% brown out at 7 DAA. At 14 DAA the percentage of brown out increased to above 75% across all treatments and at 22 DAA it increased again to above 90% brown out for all treatments except Ecopar 100ml/ha and 200ml/ha and Sharpen at the 9gm/ha rate.

As Glyphosate alone and valor at 15gm/ha showed significantly higher brown out it could be suggested the glyphosate was providing majority of control of lesser loosestrife and Group G spikes would not

the preferred option for lesser loose strife control.

#### **Capeweed Control**

Sharpen at 9gm/ha and 26gm/ha again showed significantly higher brownout 7 DAA. At the 7 DAA after application all other treatments had less than 35% brownout. This would suggest that sharpen is extremely active on capeweed. Due to the variability in plant numbers assessments we not made at 14 and 21 DAA.

#### ***Disclaimer:***

The purpose of the trial is for research only. Research is necessary to screen new products and their uses and to generate data necessary to support product registration. In this trial the research being undertaken may be illegal through the use of a registered product off-label or involve the use of an unregistered product.

Information in this report may contain off label use and therefore individuals should seek professional advice or always refer to label before using any of the chemicals in this report on farm.

#### **Acknowledgements**

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