

Disclaimer:

This document is based on the results from an individual trial and may contain experimental use patterns that are currently off-label. **This document does not provide any interpretation and should not be taken as an endorsement of any unregistered use pattern.** Professional advice should be sought for specific recommendations to ensure access to the most up to date information and knowledge. **Any product referred to in this document must be used strictly as directed, and in accordance with all label or permit instructions. Always consult the label prior to use.**

Alternative 2nd Knocks for Grass Weeds

Trial ID: **LB1822** Location: **Irvingdale** Trial Year: **2018**
Investigator: **Linda Bailey**

Objective:	To evaluate alternative second knock options for grass weeds	
Situation:	Fallow	
Application:	A (1 st Knock)	B (2 nd Knock)
Application Date:	31/10/2018	07/11/2018 (7 Days after Application A)
Nozzles:	AIXR110015	
Volume:	100 L/ha	
Pressure:	300 kPa	
Weed:	Feathertop Rhodes Grass	Flaxleaf Fleabane
Weed Population:	10.5 plants/m ²	0.4 plants/m ²
Weed Stage at Application:	Full Tillering, up to 10 cm tall	Buds visible but pre flowering, 20-25 cm tall
Keywords:	Feathertop Rhodes grass, flaxleaf fleabane, knockdown, double knock, fallow	

NB: 1st knock (Application A) was a mixture of Roundup CT 2 L/ha + Verdict 100 mL/ha + Uptake 0.5% v/v over the entire area

Comparison of 2nd Knock Performance (all applied at Application B)

Pest Scientific Name			<i>Chloris virgata</i>		<i>Conyza bonariensis</i>
Pest Name			Feathertop Rhodes Grass		Flaxleaf Fleabane
Assessment Date			17/11/2018	13/12/2018	13/12/2018
Assessment Type			BURNDOWN	SURVIVING	REGROWING
Assessment Unit			%	/m ²	/m ²
Treatment-Evaluation Interval			17 DAA/ 10 DAB	43 DAA/ 36 DAB	43 DAA/ 36 DAB
ARM Action Codes			AA	AA	AA
Trt No.	Treatment	Product Rate			
1	1st knock only	-	93-	0.00-	0.68a
2	Gramoxone	800ml/ha	98-	0.01-	0.58abc
3	Gramoxone	1600ml/ha	98-	0.00-	0.67ab
4	Gramoxone	2000ml/ha	98-	0.00-	0.51a-d
5	Gramoxone	2400ml/ha	98-	0.00-	0.19de
6	Gramoxone Sharpen	1600ml/ha 9g/ha	98-	0.03-	0.47a-d
7	Gramoxone Sharpen Hasten	1600ml/ha 9g/ha 1% v/v	100-	0.00-	0.13e
8	Gramoxone Basta	1600ml/ha 2000ml/ha	100-	0.07-	0.20cde
9	Paratrooper	1600ml/ha	100-	0.01-	0.52a-d
10	Alliance	3200ml/ha	95-	0.03-	0.25b-e
11	Gramoxone Balance	1600ml/ha 100g/ha	98-	0.00-	0.22cde
12	Sprayseed 250	1600ml/ha	97-	0.03-	0.17de
13	Basta	3750ml/ha	98-	0.07-	0.58abc
14	Experimental Hasten	3300ml/ha 1% v/v	98-	0.01-	0.80a
LSD P=.05			nsd	nsd	1.841t
Treatment Prob.(F)=			0.4568	0.8481	0.0141

Means followed by same letter do not significantly differ (P=.05, LSD)

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P (F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Average=3, 7

Alternative 2nd Knocks for Grass Weeds

Trial ID: LB1822 **Location:** Irvingdale **Trial Year:** 2018

Assessment Type

BURNDOWN = % Burndown/brown out

ARM Action Codes

AA = Automatic arcsine square root % transformation

DAA = Days after Application A, DAB = Days after Application B

Conclusions:

The trial was established to screen 2nd knock options for feathertop Rhodes grass (FTR) control. A 1st knock of Roundup CT 2 L/ha + Verdict 100 mL/ha + Uptake 0.5% v/v was applied to a FTR population of ~11 weeds/m² at late tillering prior to stem elongation (~10-30 cm in diameter). The 2nd knock treatments were applied 7 days later.

A burndown assessment was conducted 10 days after the 2nd knock application. A very high level of burndown (93%) was achieved from the 1st knock alone with no significant difference apparent between the 2nd knock treatments.

Survival counts of FTR were taken 36 days after the 2nd knock. The first knock alone provided complete FTR control with no apparent difference between the 2nd knock treatments.

A count was also made of surviving flaxleaf fleabane. Gramoxone 2400 mL/ha, Gramoxone 1600 mL/ha + Basta, Gramoxone 1600 mL/ha + Balance, Alliance, Sprayseed and Gramoxone 1600 mL/ha + Sharpen + Hasten all significantly reduced the number of surviving fleabane compared to the 1st knock treatment alone. Gramoxone + Sharpen + Hasten appeared to be the most effective 2nd knock used however the same treatment without the crop oil Hasten performed poorly.

In this situation, none of the 2nd knock options provided any improvement in FTR control compared to the 1st knock treatment alone.

Application Description		
	A	B
Application Date:	31/10/2018	7/11/2018
Application Start Time:	2:40 PM	1:15 PM
Application Stop Time:	3:40 PM	3:35 PM
Application Method:	SPRAY	
Application Timing:	LATE POST-EM	
Application Placement:	FOLIAR	
Air Temperature, Unit:	28 C	37 C
% Relative Humidity:	32	34
Wind Velocity, Unit:	2 km/h	8 km/h
Wind Direction:	E	NNW
Dew Presence (Y/N):	No	
Soil Moisture:	DRY	
% Cloud Cover:	10	
Next Moisture Occurred On:	8/11/2018	8/11/2018

Alternative 2nd Knocks for Grass Weeds

Trial ID: LB1822 Location: Irvingdale Trial Year: 2018

Pest Stage at Each Application	
Pest:	<i>Chloris virgata</i> Feathertop Rhodes Grass
Stage Majority:	29
Stage Minimum:	12
Stage Maximum:	29
Diameter, Unit:	30 cm
Height, Unit:	10 cm
Density, Unit:	10.5 m ²

Application Equipment		
	A	B
Application Equipment:	Polaris	
Equipment Type:	BOOM	
Operation Pressure, Unit:	350 kPa	
Nozzle Type:	AIXR	
Nozzle Size:	110015	
Nozzle Spacing, Unit:	50 cm	
Nozzles/Row:	8	
Boom Length, Unit:	4 m	
Boom Height, Unit:	110 cm	
Ground Speed, Unit:	7.2 km/h	
Spray Volume, Unit:	100 L/ha	