

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.

Spray Drift Reduction Effect on Efficacy

Trial ID: **BD1724** Location: **Bective** Trial Year: **2018**
 Investigator: **Branko Duric**

Objective:	To determine the effects on efficacy of adopting drift reduction agents and ultra-coarse droplets				
Application Code:	A	B	C	D	E
Application Date:	17/01/2018				
Nozzle:	AIXR11002	TTI110015	TTI11002	TTI11003	TTI110015
Speed:	13.7 km/h	10.3 km/h	13.7 km/h	13.7 km/h	6.9 km/h
Volume:	70 L/ha	70 L/ha	70 L/ha	105 L/ha	105 L/ha
Droplet:	Coarse	Ultra Coarse	Ultra Coarse	Ultra Coarse	Ultra Coarse
Description:	Standard	Slow speed	Standard	Increased volume	Slow speed & increased volume
Application Timing:	Post-Emergent Knockdown				
Weed Stage:	Beginning of Flowering				
Weed Population:	0.8/m ²				
Keywords:	Flaxleaf Fleabane, knockdown, fallow				
NB: No sign of burndown from any treatment when assessed at 14 DAA. Consequently Gramoxone 2L/ha was applied across all plots on the 22 DAA as a second knock.					

Pest Scientific Name					<i>Conyza bonariensis</i>	
Pest Name					Flaxleaf Fleabane	
Description					Regrowing	Total surviving
Assessment Date					21/02/2018	21/02/2018
Assessment Type					COUNT	COUNT
Assessment Unit					/m ²	/m ²
Treatment-Evaluation Interval					35 DAA	35 DAA
Trt No.	Treatment	Product Rate	Appln. Code	Spray Volume		
TABLE OF A MEANS (Nozzle)						
1	AIXR11002		A	70L/ha	0.32ab	0.55ab
2	TTI110015		B	70L/ha	0.54a	0.94a
3	TTI11002		C	70L/ha	0.09b	0.22b
4	TTI11003		D	105L/ha	0.10b	0.20b
5	TTI110015		E	105L/ha	0.25ab	0.46b
TABLE OF B MEANS (Adjuvant Package)						
1	Weedmaster DST Amicide Advance 700 Hasten	1400ml/ha 1100ml/ha 1% v/v			0.18-	0.32-
2	Weedmaster DST Amicide Advance 700 Hasten LI-700	1400ml/ha 1100ml/ha 1% v/v 0.5% v/v			0.33-	0.64-
3	Weedmaster DST Amicide Advance 700 DeadSure	1400ml/ha 1100ml/ha 0.375% v/v			0.26-	0.46-

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Pest Scientific Name Pest Name Description Assessment Date Assessment Type Assessment Unit Treatment-Evaluation Interval					<i>Conyza bonariensis</i> Flaxleaf Fleabane	
					Regrowing 21/02/2018 COUNT /m ² 35 DAA	Total Surviving Plants 21/02/2018 COUNT /m ² 35 DAA
Trt No.	Treatment	Product Rate	Appln. Code	Spray Volume		
TABLE OF A x B MEANS (Nozzle x Adjuvant Package)						
1a	Weedmaster DST Amicide Advance 700 Hasten	1400ml/ha 1100ml/ha 1% v/v	A	70L/ha	0.16-	0.23-
1b	Weedmaster DST Amicide Advance 700 Hasten	1400ml/ha 1100ml/ha 1% v/v	B	70L/ha	0.16-	0.33-
1c	Weedmaster DST Amicide Advance 700 Hasten	1400ml/ha 1100ml/ha 1% v/v	C	70L/ha	0.03-	0.11-
1d	Weedmaster DST Amicide Advance 700 Hasten	1400ml/ha 1100ml/ha 1% v/v	D	105L/ha	0.20-	0.33-
1e	Weedmaster DST Amicide Advance 700 Hasten	1400ml/ha 1100ml/ha 1% v/v	E	105L/ha	0.37-	0.60-
2a	Weedmaster DST Amicide Advance 700 Hasten LI-700	1400ml/ha 1100ml/ha 1% v/v 0.5% v/v	A	70L/ha	0.34-	0.74-
2b	Weedmaster DST Amicide Advance 700 Hasten LI-700	1400ml/ha 1100ml/ha 1% v/v 0.5% v/v	B	70L/ha	0.97-	1.60-
2c	Weedmaster DST Amicide Advance 700 Hasten LI-700	1400ml/ha 1100ml/ha 1% v/v 0.5% v/v	C	70L/ha	0.17-	0.39-
2d	Weedmaster DST Amicide Advance 700 Hasten LI-700	1400ml/ha 1100ml/ha 1% v/v 0.5% v/v	D	105L/ha	0.01-	0.10-
2e	Weedmaster DST Amicide Advance 700 Hasten LI-700	1400ml/ha 1100ml/ha 1% v/v 0.5% v/v	E	105L/ha	0.17-	0.37-
3a	Weedmaster DST Amicide Advance 700 DeadSure	1400ml/ha 1100ml/ha 0.375% v/v	A	70L/ha	0.47-	0.68-
3b	Weedmaster DST Amicide Advance 700 DeadSure	1400ml/ha 1100ml/ha 0.375% v/v	B	70L/ha	0.49-	0.89-
3c	Weedmaster DST Amicide Advance 700 DeadSure	1400ml/ha 1100ml/ha 0.375% v/v	C	70L/ha	0.08-	0.17-
3d	Weedmaster DST Amicide Advance 700 DeadSure	1400ml/ha 1100ml/ha 0.375% v/v	D	105L/ha	0.08-	0.16-
3e	Weedmaster DST Amicide Advance 700 DeadSure	1400ml/ha 1100ml/ha 0.375% v/v	E	105L/ha	0.21-	0.41-

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

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Location: Bective

Trial Year: 2018

FACTORIAL/POOLED ERROR AOV <i>Conyza bonariensis</i> - Flaxleaf Fleabane Regrowing 21/02/2018 COUNT /m ² 35 DAA						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	44	5.459753				
R	2	0.367457	0.183728	1.995	0.1549	
A	4	1.220247	0.305062	3.313	0.0242	0.29
B	2	0.166864	0.083432	0.906	0.4157	0.23
AB	8	1.126716	0.140840	1.529	0.1919	0.51
ERROR	28	2.578469	0.092088			

FACTORIAL/POOLED ERROR AOV <i>Conyza bonariensis</i> - Flaxleaf Fleabane Total Surviving Plants 21/02/2018 COUNT /m ² 35 DAA						
Source	DF	Sum of Squares	Mean Square	F	Prob.(F)	LSD (.05)
Total	44	12.790864				
R	2	0.702272	0.351136	1.751	0.1920	
A	4	3.281728	0.820432	4.092	0.0098	0.43
B	2	0.761827	0.380914	1.900	0.1684	0.33
AB	8	2.431012	0.303877	1.516	0.1965	0.75
ERROR	28	5.614025	0.200501			

DAA = Days after Application

Conclusions:

Factorial analysis did not show any difference in efficacy due to adjuvant on a large broadleaf weed target.

Significant differences in weed control were found however between nozzle setups. Unexpectedly, the highest levels of control were achieved using TTI11002 or TTI11003 nozzles.

In this trial, there was no adverse effect on efficacy when using reduced drift nozzle setups on large fleabane.

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Location: Bective

Trial Year: 2018

Application Description					
	A	B	C	D	E
Application Date:	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018
Application Start Time:	9:00 AM	9:45 AM	10:30 AM	11:15 AM	12:00 PM
Application Stop Time:	9:30 AM	10:15 AM	11:00 AM	11:45 AM	12:30 PM
Application Method:	SPRAY				
Application Timing:	LATE POST-EM				
Application Placement:	FOLIAR				
Air Temperature, Unit:	22 C	22 C	24 C	24 C	31 C
% Relative Humidity:	38.4	38.4	36	36	28
Wind Velocity, Unit:	0.7 m/s	0.7 m/s	0.9 m/s	0.9 m/s	0.8 m/s
Wind Direction:	SW	SW	SW	SW	SW
Dew Presence (Y/N):	No				
% Cloud Cover:	0				

Application Equipment					
	A	B	C	D	E
Application Equipment:	Polaris				
Equipment Type:	BOOM				
Operation Pressure, Unit:	300 kPa				
Nozzle Type:	AIXR	TTI	TTI	TTI	TTI
Nozzle Size:	11002	110015	11002	11003	110015
Nozzle Spacing, Unit:	50 cm				
Boom Length, Unit:	4 m				
Boom Height, Unit:	50 cm				
Ground Speed, Unit:	13.7 km/h	10.3 km/h	13.7 km/h	13.7 km/h	6.9 km/h
Spray Volume, Unit:	70 L/ha	70 L/ha	70 L/ha	105 L/ha	105 L/ha