

Disclaimer:

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Residual Control of Tall Fleabane in Fallow

Trial ID: LB2222 **Location:** St Ruth **Trial Year:** 2023
Investigator: Linda Bailey

In recent years, tall fleabane has become a major fallow problem weed due to the lack of effective knockdown herbicide options. Knockdown herbicide programs suitable for flaxleaf fleabane generally have poor efficacy on tall fleabane. This trial was conducted to screen a range of herbicides, with existing or planned fallow registrations, for potential to assist in the management of tall fleabane. Previous trials (initiated in February and August 2022) failed to provide clear efficacy results with negligible emergence of tall fleabane at both sites.

Objective:	To evaluate residual control of tall fleabane in fallow
Previous Crop:	Sorghum 2022/23
Situation:	Fallow with ~40-50 cm tall standing sorghum stubble providing ~50% groundcover
Application Date:	21/04/2023
Application Timing:	Pre-emergent
Nozzles:	AIXR11002
Volume:	100L/ha
Trial Design:	Randomised complete block of 16 treatments x 4 replicates
Plot Size:	4 m x 12 m
Keywords:	Tall fleabane, common sowthistle, residual, fallow

The trial was conducted in a fallow paddock near St Ruth on the Darling Downs in QLD, 1 month after harvest of sorghum. The site had a history of tall fleabane infestation. A commercial fallow spray (Glyphosate 450 2 L/ha) was applied at trial initiation to control seedling common sowthistle. The commercial application provided effective knockdown sowthistle control.

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No product has a registration for the residual control of tall fleabane.

- Balance, Terbyne Xtreme and Valor all have fallow registrations for the residual control of both common sowthistle and flaxleaf fleabane.
- Dual Gold has a fallow registration for the residual control of common sowthistle.
- The Group 14 R herbicide has a registration for residual control of common sowthistle and suppression of fleabane when applied prior to planting chickpeas, lupins, field peas and faba beans.
- The Group 14 V herbicide has a registration for residual control of fleabane spp and common sowthistle when applied prior to wheat, barley, durum, oats or triticale.
- The Group 13 herbicide has a registration for residual control of common sowthistle when applied prior to planting wheat, barley, canola, field peas and faba beans.

NB: A double knock application was conducted shortly after the 1st weed count to control seedling tall fleabane and common sowthistle.

1st knock 49 DAA: Glyphosate CT 2.4 L/ha + Amicide Advance 1.5 L/ha + Hasten 1%

2nd knock 56 DAA: Guerrilla 1.3 L/ha + Sharpen 9 g/ha + Hasten 1%

Pest Scientific Name Pest Name			<i>Conyza sumatrensis</i> Tall Fleabane		<i>Sonchus oleraceus</i> Common Sowthistle	
			5/06/2023 COUNT /m ²	12/09/2023 COUNT /m ²	5/06/2023 COUNT /m ²	12/09/2023 COUNT /m ²
Assessment Date			1 m x 10 m	1 m x 10 m	1 m x 10 m	1 m x 10 m
Assessment Type			3 leaf	1 st side shoot visible	2 leaf	Flower buds visible
Assessment Unit			45 DAA	144 DAA	45 DAA	144 DAA
Assessment Area			AA			
Pest Stage Majority			AA			
Treatment-Evaluation Interval			AA			
ARM Action Codes			AA			
Trt No.	Treatment	Product Rate				
1	Untreated	-	0.85a	0.30a	6.33a	0.24a-d
2	Dual Gold	2000ml/ha	0.50abc	0.03bc	3.33bc	0.49a
3	Balance	100g/ha	0.18c	0c	0.28e	0.04def
4	Group 3	3400ml/ha	0.70ab	0.09ab	3.23bcd	0.19a-e
5	Terbyne Xtreme	1200g/ha	0.30bc	0c	0.20e	0.09b-f
6	Valor	140g/ha	0.93a	0.03bc	0.45de	0.07def
7	Valor	280g/ha	0.30bc	0.03bc	0.13e	0.01f
8	Group 14 R	750ml/ha	0.83a	0.14ab	0.78cde	0.05def
9	Group 14 R	1500ml/ha	0.45abc	0.05bc	0.18e	0.01f
10	Group 14 V	120ml/ha	0.05c	0c	0.05e	0.07c-f
11	Group 14 V	240ml/ha	0.05c	0c	0e	0.01f
12	Gesaprim	2000g/ha	0.08c	0.03bc	1.20b-e	0.32abc
13	Balance Valor	100g/ha 140g/ha	0.03c	0c	0.20e	0.03ef
14	Trezac	200ml/ha	0.05c	0.05bc	3.90ab	0.34ab
15	Group 13	1250ml/ha	0.75ab	0.09ab	0.05e	0.01f
16	Tordon 75-D	1000ml/ha	0.03c	0c	0e	0f
LSD P=.05			0.49	0.17 - 0.23	2.81	0.14 - 0.33
Treatment Prob.(F)=			0.0003	0.0061	0.0004	0.0002

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

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

NB: A weed count of 0 = no surviving weeds were found in any plot

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Location:

St Ruth

Trial Year:

2023

Application Description	
Application Date:	21/04/2023
Application Start Time:	10:45 AM
Application Stop Time:	1:10 PM
Air Temperature Start, Stop:	23.8, 26.8 C
% Relative Humidity Start, Stop:	51.6, 43.2
Wind Velocity & Direction Start:	12.4 km/h, E
Wind Velocity & Direction Stop:	14.6 km/h, E
Soil Moisture:	DRY
% Cloud Cover:	50
First Moisture Occurred On:	30/04/2023

Application Equipment	
Application Equipment:	Polaris
Equipment Type:	BOOM
Operation Pressure:	300 kPa
Nozzle Model	AIXR11002
Nozzle Spacing:	50 cm
Boom Length:	4 m
Boom Height:	60 cm
Ground Speed:	9.5 km/h
Application Amount:	100 L/ha

Rainfall:

Closest Weather Station:	SILO grid point -27.35, 151.35
Distance:	2.3 km

Date	Amount	Unit	Comments
21/04/2023	-		Application
30/04/2023	2.1	mm	
2/05/2023	0.8	mm	Site inspection
15/05/2023	3.9	mm	
16/05/2023	44	mm	
22/05/2023	-		Site inspection
05/06/2023	-		Assessment 1 (weed count)
09/06/2023	-		Maintenance 1 st knock
16/06/23	-		Maintenance 2 nd knock
4/07/2023	9.3	mm	
5/07/2023	5.7	mm	
10/07/2023	-		Site inspection
12/09/2023	-		Assessment 2 (weed count)