

SLR-25-SHO-01

Trial Report

Pre and Early Post Emergent Showpiece

Trial location: Moora, Western Australia
Year: 2025



Table of Contents

1.	Objectives	3
2.	Materials and methods.....	4
2.1	Product information	4
2.2	Treatment details and randomisation	5
3.	Results.....	6
3.1	Table of results	6
3.1.1	Annual ryegrass counts (m ²), 35 DA-A and 6, 14, 32 DA-B and panicle counts (m ²) at 68 DA-B	6
3.1.2	Annual ryegrass control (%), 35 DA-A and 6, 14, 32 and panicle control (%), 68 DA-B	7
3.1.3	Volunteer canola counts (m ²), 35 DA-A and 6, 14, 32 and flowering canola (per plot), 68 DA-B... 8	
3.1.4	Volunteer canola control (%), 35 DA-A and 6, 14, 32 and flowering canola control (%) 68 DA-B .. 9	
3.1.5	Crop phytotoxicity (%), 35 DA-A, 6, 14, 32 and 68 DA-B.....	10
3.1.6	Crop biomass (%), 35 DA-A, 6, 14, 32 and 68 DA-B.....	11
3.1.7	Yield data (t/ha), 184 DA-A/ 149 DA-B.....	12
3.2	Figures	13
3.2.1	Annual ryegrass control (%), 35 DA-A, 6, 14 and 32 DA-B	13
3.2.2	Annual ryegrass panicle control (%), 68 DA-B.....	14
3.2.3	Volunteer canola control (%), 35 DA-A, 6, 14, 32 DA-B	15
4.	Chronology of events	16
5.	Appendices.....	17
5.1	Experimental details	17
5.2	Treatment application details	18
5.3	Trial site location	19
5.4	Growing conditions.....	20
5.5	Assessment details	21
5.5.1	Crop safety.....	21
5.5.2	Efficacy	21
5.6	Statistical analysis.....	22
5.7	Protocol deviations.....	22
6.	Photos	23
6.1	Assessment 2 – 40 DA-A/ 6 DA-B, 25 th June 2025	23
6.2	Assessment 3 – 66 DA-A/ 32 DA-B, 21 st July 2025	34
7.	SLR Pre and Early Post Emergent Contributors	45

1. Objectives

1. **Industry Connection:** Serve as a platform for crop protection companies to showcase their products and establish connections with the target market of WA growers.
2. **Direct Grower Education and Extension:** Provide growers in Western Australia with direct exposure to the company's products, showcasing their benefits and in-crop results.
3. **Options for Growers:** Evaluate contributions from various crop protection companies, side by side, offering growers a range of options to suit their cropping programs.
4. **Market Platform:** Provide a marketing opportunity for crop protection companies, allowing them to highlight their products directly to the target audience.

2. Materials and methods

2.1 Product information

Product	Active ingredient	Formulation type
Valor EZE	Flumioxazin 480g/L	SC
Pyroxasulfone	Pyroxasulfone 850g/kg	WG
Valor WG	Flumioxazin 500g/kg	WG
Trifluralin	Trifluralin 600g/L	EC
Terrain Flow	Flumioxazin 480g/L	SC
Spruce	Pyroxasulfone + Diflufenican	
Preceed	Pyroxasulfone 850g/kg	WG
Wingman	Flumioxazin 500g/kg	WG
Saffire	Saflufenacil 250g/L	SC
Luximax	Cinmethylin 750g/L	EC
Voraxor	Saflufenacil 250g/L Trifludimoxazin 125g/L	SC
Boxer Gold	S-metolachlor 120g/L Prosulfocarb 800g/L	SC
Overwatch	Bixlozone 400g/L	SC
Mateno	Aclonifen 400g/L Diflufenican 66g/L Pyroxasulfone 100g/L	SC
FMC410	Bixlozone + Diflufenican	WG
Prosulfocarb	Prosulfocarb 800g/L	EC

2.2 Treatment details and randomisation

Treatment No.	Treatment Name	Rate	Rate Unit	Appl Timing	Appl Code
1	Untreated Control	-	-	-	-
2	Valor EZE	125	mL/ha	IBS	A
	Pyroxasulfone	118	g/ha	IBS	A
3	Valor WG	120	g/ha	IBS	A
	Pyroxasulfone	118	g/ha	IBS	A
4	Trifluralin	2	L/ha	IBS	A
	Terrain Flow	125	mL/ha	IBS	A
5	Spruce/GPH1121	500	mL/ha	IBS	A
6	Trifluralin	2	L/ha	IBS	A
	Pyroxasulfone	118	g/ha	IBS	A
7	Pyroxasulfone	118	g/ha	IBS	A
	Terrain Flow	125	mL/ha	IBS	A
8	Preceed	118	g/ha	IBS	A
	Wingman	600	mL/ha	IBS	A
9	Preceed	118	g/ha	IBS	A
	Saffire	240	mL/ha	IBS	A
	Wingman	480	mL/ha	IBS	A
10	Luximax	500	mL/ha	IBS	A
	Voraxor	200	mL/ha	IBS	A
11	Pyroxasulfone	118	g/ha	IBS	A
	Boxer Gold	2.5	L/ha	IBS	A
12	Pyroxasulfone	118	g/ha	IBS	A
	Trifluralin	2	L/ha	IBS	A
	Boxer Gold	2.5	L/ha	IBS	A
13	Overwatch	1.25	L/ha	IBS	A
	Trifluralin	2	L/ha	IBS	A
14	Overwatch	1.25	L/ha	IBS	A
	Pyroxasulfone	118	g/ha	IBS	A
15	Overwatch	1.25	L/ha	IBS	A
	Boxer Gold	2.5	L/ha	IBS	A
16	Overwatch	1.25	L/ha	IBS	A
	Trifluralin	2	L/ha	IBS	A
	Boxer Gold	2.5	L/ha	IBS	A
17	Trifluralin	2	L/ha	IBS	A
	Mateno	1	L/ha	EPE	B
18	Terrain Flow	125	mL/ha	IBS	A
	Mateno	1	L/ha	EPE	B
19	Boxer Gold	2.5	L/ha	IBS	A
	Mateno	1	L/ha	EPE	B
20	Trifluralin	2	L/ha	IBS	A
	FMC410	1.7	kg/ha	EPE	B
21	Overwatch	1.25	L/ha	IBS	A
	Prosulfocarb	3	L/ha	EPE	B
22	Overwatch	1.25	L/ha	IBS	A
	Mateno	1	L/ha	EPE	B

301 6	302 22	303 19	304 12	305 17	306 20	307 14	308 10	309 15	310 7	311 8	312 16	313 11	314 18	315 13	316 21	317 4	318 3	319 1	320 2	321 9	322 5
201 18	202 21	203 7	204 15	205 12	206 10	207 20	208 14	209 17	210 2	211 22	212 1	213 3	214 16	215 9	216 6	217 19	218 4	219 13	220 8	221 5	222 11
101 1	102 2	103 3	104 4	105 5	106 6	107 7	108 8	109 9	110 10	111 11	112 12	113 13	114 14	115 15	116 16	117 17	118 18	119 19	120 20	121 21	122 22

3. Results

3.1 Table of results

3.1.1 Annual ryegrass counts (m²), 35 DA-A and 6, 14, 32 DA-B and panicle counts (m²) at 68 DA-B

Table 1. ANOVA means table of results showing annual ryegrass counts (m²), 35 DA-A and 6, 14, 32 DA-B and panicle counts (m²), 68 DA-B.

Rating Date					19/06/2025	25/06/2025	3/07/2025	21/07/2025	26/08/2025
SE Description					ARG m2	ARG m2	ARG m2	ARG m2	ARG Panicles m2
Rating Unit					m2	m2	m2	m2	m2
Number of Subsamples					3	3	3	3	3
Rating Timing					A1	A2	A3	A4	A5
Days After First/Last Appl.					35, 35 DA-A	41, 6 DA-B	49, 14 DA-B	67, 32 DA-B	103, 68 DA-B
ARM Action Codes									
Trt No.	Treatment Name	Rate	Unit	Appl Code	11	12	13	14	15
1	UTC				147.11 a	256 a	305.33 a	329.33 a	167.56 a
2	Valor EZE	125	m/ha	A	36 d	65.33 cd	46.67 de	66.67 bcd	35.56 e-h
	Pyroxasulfone	118	g/ha	A					
3	ValorWG	120	g/ha	A	43.56 cd	56 d	52.44 de	64.89 bcd	31.11 e-i
	Pyroxasulfone	118	g/ha	A					
4	Trifluralin	2	l/ha	A	33.33 d	56.89 d	69.33 b-e	75.11 bcd	82.67 bc
	Terrain Flow	125	ml/ha	A					
5	Spruce/GPH1121	500	ml/ha	A	29.33 d	44 d	51.11 de	64.89 bcd	27.11 e-i
6	Trifluralin	2	l/ha	A	38.22 cd	53.33 d	65.78 b-e	63.11 bcd	35.11 e-i
	Pyroxasulfone	118	g/ha	A					
7	Pyroxasulfone	118	g/ha	A	55.56 cd	68.89 cd	106.22 bc	87.56 bc	56.44 c-f
	Terrain Flow	125	ml/ha	A					
8	Preceed	118	g/ha	A	29.33 d	52 d	60 cde	59.11 bcd	48.89 c-f
	Wingman	600	ml/ha	A					
9	Preceed	118	g/ha	A	37.33 cd	64.44 cd	55.56 de	75.56 bcd	28 e-i
	Saffire	240	ml/ha	A					
	Wingman	480	ml/ha	A					
10	Luximax	500	ml/ha	A	56 cd	100.89 bc	87.56 bcd	92.44 b	92.89 b
	Voraxor	200	ml/ha	A					
11	Pyroxasulfone	118	g/ha	A	29.33 d	55.56 d	52 de	72 bcd	42.67 d-g
	Boxer Gold	2.5	l/ha	A					
12	Pyroxasulfone	118	g/ha	A	55.56 cd	76.89 cd	61.78 b-e	73.78 bcd	49.78 c-f
	Trifluralin	2	l/ha	A					
	Boxer Gold	2.5	l/ha	A					
13	Overwatch	1.25	l/ha	A	33.78 d	62.22 cd	57.78 de	72 bcd	52 c-f
	Trifluralin	2	l/ha	A					
14	Overwatch	1.25	l/ha	A	57.78 cd	73.78 cd	66.22 b-e	58.22 bcd	23.11 f-i
	Pyroxasulfone	118	g/ha	A					
15	Overwatch	1.25	l/ha	A	69.33 bc	80 cd	87.56 bcd	92.44 b	72.44 bcd
	Boxer Gold	2.5	l/ha	A					
16	Overwatch	1.25	l/ha	A	42.22 cd	56.89 d	57.33 de	50.22 bcd	60 b-e
	Trifluralin	2	l/ha	A					
	Boxer Gold	2.5	l/ha	A					
17	Trifluralin	2	l/ha	A	56 cd	82.67 cd	48 de	29.33 d	2.67 hi
	Mateno	1	l/ha	B					
18	Terrain Flow	125	ml/ha	A	95.11 b	132 b	107.11 b	85.33 bc	3.56 hi
	Mateno	1	l/ha	B					
19	Boxer Gold	2.5	l/ha	A	52.89 cd	83.11 cd	57.33 de	37.33 cd	2.22 hi
	Mateno	1	l/ha	B					
20	Trifluralin	2	l/ha	A	57.33 cd	85.78 cd	32 e	40.89 cd	10.22 ghi
	FMC410	1.7	kg/ha	B					
21	Overwatch	1.25	l/ha	A	61.33 cd	86.67 cd	83.56 bcd	84.89 bc	28.44 e-i
	Prosulfocarb	3	l/ha	B					
22	Overwatch	1.25	l/ha	A	50.22 cd	80.89 cd	33.33 e	27.56 d	0.44 i
	Mateno	1	l/ha	B					
LSD P=.05					32.706	43.584	46.985	50.486	34.991
Standard Deviation					19.849	26.451	28.514	30.639	21.236
CV					37.43	32.8	38.16	39.59	49.03

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

3.1.2 Annual ryegrass control (%), 35 DA-A and 6, 14, 32 and panicle control (%), 68 DA-B

Table 2. ANOVA means table of results showing annual ryegrass control (%) 35 DA-A and 6, 14, 32 DA-B and panicle control (%) 68 DA-B.

Rating Date					19/06/2025	25/06/2025	3/07/2025	21/07/2025	26/08/2025
SE Description					ARG control	ARG control	ARG control	ARG control	ARG panicle control
Rating Unit					%UNCK	%UNCK	%UNCK	%UNCK	%UNCK
Number of Subsamples					1	1	1	1	1
Rating Timing					A1	A2	A3	A4	A5
Days After First/Last Appl.					35, 35 DA-A	41, 6 DA-B	49, 14 DA-B	67, 32 DA-B	103, 68 DA-B
ARM Action Codes					TAB[11]	TAB[12]	TAB[13]	TAB[14]	TAB[15]
Trt No.	Treatment Name	Rate	Unit	Appl Code	16	17	18	19	20
1	UTC				0 d	0 g	0 f	0 e	0 j
2	Valor EZE	125	ml/ha	A	75.17 a	75.21 a-d	83.92 ab	79.45 a-d	83.68 a-e
	Pyroxasulfone	118	g/ha	A					
3	Valor WG	120	g/ha	A	71.9 ab	76.19 a-d	82.31 abc	79.98 a-d	83.42 a-e
	Pyroxasulfone	118	g/ha	A					
4	Trifluralin	2	l/ha	A	77.29 a	77.32 abc	76.31 b-e	76.45 cd	50.24 hi
	Terrain Flow	125	ml/ha	A					
5	Spruce/GPH1121	500	ml/ha	A	79.71 a	79.9 a	82.23 abc	80.18 a-d	87.36 a-d
6	Trifluralin	2	l/ha	A	73.97 ab	78.56 ab	77.78 a-d	80.7 a-d	81.8 b-f
	Pyroxasulfone	118	g/ha	A					
7	Pyroxasulfone	118	g/ha	A	64.38 ab	70.94 a-e	64.79 e	73.18 d	64.51 fgh
	Terrain Flow	125	ml/ha	A					
8	Preceed	118	g/ha	A	78.53 a	75.64 a-d	78.8 abc	81.41 a-d	73.12 d-g
	Wingman	600	ml/ha	A					
9	Preceed	118	g/ha	A	73.71 ab	73.42 a-d	81.32 abc	77.55 bcd	84.68 a-e
	Saffire	240	ml/ha	A					
	Wingman	480	ml/ha	A					
10	Luximax	500	ml/ha	A	63.39 ab	58.73 ef	71.32 cde	71.47 d	42.99 i
	Voraxor	200	ml/ha	A					
11	Pyroxasulfone	118	g/ha	A	79.67 a	76.2 a-d	81.74 abc	77.94 a-d	75.79 def
	Boxer Gold	2.5	l/ha	A					
12	Pyroxasulfone	118	g/ha	A	64.07 ab	69.24 a-e	78.88 abc	77.35 cd	71.04 d-g
	Trifluralin	2	l/ha	A					
	Boxer Gold	2.5	l/ha	A					
13	Overwatch	1.25	l/ha	A	77.13 a	73.42 a-d	80.48 abc	78 a-d	68.97 efg
	Trifluralin	2	l/ha	A					
14	Overwatch	1.25	l/ha	A	61.56 ab	69.99 a-e	77.23 a-d	82.51 a-d	85.83 a-e
	Pyroxasulfone	118	g/ha	A					
15	Overwatch	1.25	l/ha	A	53.68 bc	67.38 a-e	71.05 cde	72.48 d	56.45 ghi
	Boxer Gold	2.5	l/ha	A					
16	Overwatch	1.25	l/ha	A	71.12 ab	77.08 a-d	80.5 abc	84.45 a-d	64.53 fgh
	Trifluralin	2	l/ha	A					
	Boxer Gold	2.5	l/ha	A					
17	Trifluralin	2	l/ha	A	59.72 ab	66.06 b-e	84.18 ab	90.91 ab	98.46 ab
	Mateno	1	l/ha	B					
18	Terrain Flow	125	ml/ha	A	34.07 c	46.35 f	66.08 de	75.52 cd	97.43 ab
	Mateno	1	l/ha	B					
19	Boxer Gold	2.5	l/ha	A	64.45 ab	67.11 b-e	80.25 abc	88.22 abc	98.71 ab
	Mateno	1	l/ha	B					
20	Trifluralin	2	l/ha	A	60.27 ab	65.34 cde	89.4 a	87.59 abc	93.56 abc
	FMC410	1.7	kg/ha	B					
21	Overwatch	1.25	l/ha	A	60 ab	64.64 de	74.42 b-e	75.58 cd	78.9 c-f
	Prosulfocarb	3	l/ha	B					
22	Overwatch	1.25	l/ha	A	66.9 ab	66.3 b-e	88.68 a	91.18 a	99.81 a
	Mateno	1	l/ha	B					
LSD P=.05					20.359	12.546	12.328	13.386	17.687
Standard Deviation					12.356	7.614	7.482	8.124	10.734
CV					19.27	11.36	9.97	10.62	14.39

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

3.1.3 Volunteer canola counts (m²), 35 DA-A and 6, 14, 32 and flowering canola (per plot), 68 DA-B

Table 3. ANOVA means table of results showing volunteer canola counts (m²), 35 DA-A and 6, 14, 32 and flowering canola (per plot), 68 DA-B.

Rating Date					19/06/2025	25/06/2025	3/07/2025	21/07/2025	26/08/2025
SE Description					Canola m2	Canola m2	Canola m2	Canola m2	Flowering Canola
Rating Unit					m2	m2	m2	m2	PLOT
Number of Subsamples					3	3	3	3	1
Rating Timing					A1	A2	A3	A4	
Days After First/Last Appl.					35, 35 DA-A	41, 6 DA-B	49, 14 DA-B	67, 32 DA-B	103, 68 DA-B
ARM Action Codes									
Trt No.	Treatment Name	Rate	Unit	Appl Code	21	22	23	24	25
1	UTC				12 a	12.89 a	16 a	20.44 a	29 a
2	Valor EZE	125	ml/ha	A	1.33 bc	0.89 b	0 d	0 c	3.33 ef
	Pyroxasulfone	118	g/ha	A					
3	Valor WG	120	g/ha	A	0.56 bc	0.44 b	1.78 d	1.44 bc	4.67 ef
	Pyroxasulfone	118	g/ha	A					
4	Trifluralin	2	l/ha	A	1.33 bc	1.78 b	2.22 d	1.78 bc	16.33 bcd
	Terrain Flow	125	ml/ha	A					
5	Spruce/GPH1121	500	ml/ha	A	1.33 bc	1.33 b	1.33 d	0.89 bc	17.67 b
6	Trifluralin	2	l/ha	A	3.11 bc	3.11 b	1.78 d	1.78 bc	19 b
	Pyroxasulfone	118	g/ha	A					
7	Pyroxasulfone	118	g/ha	A	0.89 bc	0.89 b	2.22 d	1.33 bc	6 ef
	Terrain Flow	125	ml/ha	A					
8	Preceed	118	g/ha	A	0.89 bc	0.89 b	1.33 d	0 c	9 de
	Wingman	600	ml/ha	A					
9	Preceed	118	g/ha	A	4 b	4.44 b	0 d	0 c	5 ef
	Saffire	240	ml/ha	A					
	Wingman	480	ml/ha	A					
10	Luximax	500	ml/ha	A	1.33 bc	1.33 b	0.89 d	0.89 bc	5 ef
	Voraxor	200	ml/ha	A					
11	Pyroxasulfone	118	g/ha	A	0.67 bc	0.89 b	1.33 d	0.89 bc	9.67 cde
	Boxer Gold	2.5	l/ha	A					
12	Pyroxasulfone	118	g/ha	A	3.11 bc	2.67 b	3.11 cd	0.89 bc	16.67 bcd
	Trifluralin	2	l/ha	A					
	Boxer Gold	2.5	l/ha	A					
13	Overwatch	1.25	l/ha	A	3.56 bc	4 b	8 b	3.11 b	27.33 a
	Trifluralin	2	l/ha	A					
14	Overwatch	1.25	l/ha	A	2.22 bc	2.67 b	3.11 cd	0.44 bc	17 bc
	Pyroxasulfone	118	g/ha	A					
15	Overwatch	1.25	l/ha	A	3.11 bc	3.56 b	3.11 cd	2.22 bc	22.33 ab
	Boxer Gold	2.5	l/ha	A					
16	Overwatch	1.25	l/ha	A	3.56 bc	4 b	6.67 bc	3.11 b	16.67 bcd
	Trifluralin	2	l/ha	A					
	Boxer Gold	2.5	l/ha	A					
17	Trifluralin	2	l/ha	A	1.78 bc	1.33 b	0 d	0 c	0.33 f
	Mateno	1	l/ha	B					
18	Terrain Flow	125	ml/ha	A	0 c	0 b	0 d	0 c	0 f
	Mateno	1	l/ha	B					
19	Boxer Gold	2.5	l/ha	A	3.56 bc	4 b	0 d	0 c	0.67 f
	Mateno	1	l/ha	B					
20	Trifluralin	2	l/ha	A	1.78 bc	2.67 b	1.78 d	1.33 bc	0.33 f
	FMC410	1.7	kg/ha	B					
21	Overwatch	1.25	l/ha	A	2.67 bc	2.22 b	3.11 cd	3.11 b	24 ab
	Prosulfocarb	3	l/ha	B					
22	Overwatch	1.25	l/ha	A	2.67 bc	3.11 b	0 d	0 c	2 ef
	Mateno	1	l/ha	B					
LSD P=.05					3.763	5.542	3.825	3.072	7.865
Standard Deviation					2.284	3.363	2.321	1.865	4.773
CV					90.62	125.18	88.38	93.94	41.67

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

3.1.4 Volunteer canola control (%), 35 DA-A and 6, 14, 32 and flowering canola control (%) 68 DA-B

Table 4. ANOVA means table of results showing volunteer canola control (%) 35 DA-A and 6, 14, 32 and flowering canola control (%), 68 DA-B.

Rating Date					19/06/2025	25/06/2025	3/07/2025	21/07/2025	26/08/2025
SE Description					Canola control	Canola control	Canola control	Canola control	Flowering canola
Rating Unit					%UNCK	%UNCK	%UNCK	%UNCK	%UNCK
Number of Subsamples					1	1	1	1	1
Rating Timing					A1	A2	A3	A4	A5
Days After First/Last Appl.					35, 35 DA-A	41, 6 DA-B	49, 14 DA-B	67, 32 DA-B	103, 68 DA-B
ARM Action Codes					TAB[21]	TAB[22]	TAB[23]	TAB[24]	TAB[25]
Trt No.	Treatment Name	Rate	Unit	Appl Code	26	27	28	29	30
1	UTC				0 c	0 b	0 c	0 d	0 g
2	Valor EZE	125	ml/ha	A	91.51 ab	93.75 a	100 a	100 a	89.03 abc
	Pyroxasulfone	118	g/ha	A					
3	Valor WG	120	g/ha	A	95.61 ab	95.83 a	86.11 a	94.4 ab	84.25 abc
	Pyroxasulfone	118	g/ha	A					
4	Trifluralin	2	l/ha	A	92.98 ab	91.67 a	83.33 a	89.29 abc	42.57 de
	Terrain Flow	125	ml/ha	A					
5	Spruce/GPH1121	500	ml/ha	A	90.04 ab	93.75 a	90.74 a	95.24 ab	38.83 ef
6	Trifluralin	2	l/ha	A	77.74 ab	77.08 a	86.11 a	93.33 abc	34.15 ef
	Pyroxasulfone	118	g/ha	A					
7	Pyroxasulfone	118	g/ha	A	92.38 ab	95.83 a	86.11 a	95 ab	79.7 abc
	Terrain Flow	125	ml/ha	A					
8	Preceed	118	g/ha	A	95.32 ab	95.83 a	91.67 a	100 a	67.96 bcd
	Wingman	600	ml/ha	A					
9	Preceed	118	g/ha	A	68.65 ab	79.17 a	100 a	100 a	82.89 abc
	Saffire	240	ml/ha	A					
	Wingman	480	ml/ha	A					
10	Luximax	500	ml/ha	A	90.04 ab	93.75 a	94.44 a	95.95 ab	82.76 abc
	Voraxor	200	ml/ha	A					
11	Pyroxasulfone	118	g/ha	A	93.52 ab	95.83 a	90.74 a	95.95 ab	66.53 cd
	Boxer Gold	2.5	l/ha	A					
12	Pyroxasulfone	118	g/ha	A	74.69 ab	87.5 a	77.78 a	95.95 ab	42.68 de
	Trifluralin	2	l/ha	A					
	Boxer Gold	2.5	l/ha	A					
13	Overwatch	1.25	l/ha	A	64.89 b	81.25 a	49.63 b	81.75 c	15.05 fg
	Trifluralin	2	l/ha	A					
14	Overwatch	1.25	l/ha	A	80.95 ab	87.5 a	78.52 a	98.33 a	40.27 ef
	Pyroxasulfone	118	g/ha	A					
15	Overwatch	1.25	l/ha	A	73.22 ab	83.33 a	77.41 a	90.24 abc	25.14 efg
	Boxer Gold	2.5	l/ha	A					
16	Overwatch	1.25	l/ha	A	67.94 b	66.67 a	50.56 b	86.19 bc	43.31 de
	Trifluralin	2	l/ha	A					
	Boxer Gold	2.5	l/ha	A					
17	Trifluralin	2	l/ha	A	87.7 ab	89.58 a	100 a	100 a	98.72 a
	Mateno	1	l/ha	B					
18	Terrain Flow	125	ml/ha	A	100 a	100 a	100 a	100 a	100 a
	Mateno	1	l/ha	B					
19	Boxer Gold	2.5	l/ha	A	75.41 ab	66.67 a	100 a	100 a	97.61 a
	Mateno	1	l/ha	B					
20	Trifluralin	2	l/ha	A	87.7 ab	81.25 a	88.89 a	95 ab	98.72 a
	FMC410	1.7	kg/ha	B					
21	Overwatch	1.25	l/ha	A	77.03 ab	85 a	82.78 a	85.4 bc	16.48 fg
	Prosulfocarb	3	l/ha	B					
22	Overwatch	1.25	l/ha	A	64.33 b	77.08 a	100 a	100 a	92.48 ab
	Mateno	1	l/ha	B					
LSD P=.05					31.473	35.893	25.421	12.087	25.746
Standard Deviation					19.101	21.783	15.428	7.335	15.625
CV					24.13	26.36	18.7	8.1	25.67

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

3.1.5 Crop phytotoxicity (%), 35 DA-A, 6, 14, 32 and 68 DA-B

Table 5. ANOVA means table of results showing crop phytotoxicity (%) 35 DA-A, 6, 14, 32 and 68 DA-B.

Rating Date					19/06/2025	25/06/2025	3/07/2025	21/07/2025	26/08/2025
SE Description					Phytotoxicity	Phytotoxicity	Phytotoxicity	Phytotoxicity	Phytotoxicity
Rating Unit					0-100	0-100	0-100	0-100	0-100
Number of Subsamples					1	1	1	1	1
Rating Timing					A1	A2	A3	A4	A5
Days After First/Last Appl.					35 DA-A	41 DA-A, 6 DA-B	49 DA-A, 14 DA-B	67 DA-A, 32 DA-B	103 DA-A, 68 DA-B
ARM Action Codes									
Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5
1	UTC				0 e	0 c	0 c	0 d	0 na
2	Valor EZE Pyroxasulfone	125 118	ml/ha g/ha	A A	5 bc	0 c	0 c	0 d	0 na
3	Valor WG Pyroxasulfone	120 118	g/ha g/ha	A A	5 bc	0 c	0 c	0 d	0 na
4	Trifluralin Terrain Flow	2 125	l/ha ml/ha	A A	5 bc	0 c	0 c	0 d	0 na
5	Spruce/GPH1121	500	ml/ha	A	1.67 de	0 c	0 c	0 d	0 na
6	Trifluralin Pyroxasulfone	2 118	l/ha g/ha	A A	0 e	0 c	0 c	0 d	0 na
7	Pyroxasulfone Terrain Flow	118 125	g/ha ml/ha	A A	5 bc	0 c	0 c	0 d	0 na
8	Preceed Wingman	118 600	g/ha ml/ha	A A	5 bc	0 c	0 c	0 d	0 na
9	Preceed Saffire Wingman	118 240 480	g/ha ml/ha ml/ha	A A A	3.33 cd	0 c	0 c	0 d	0 na
10	Luximax Voraxor	500 200	ml/ha ml/ha	A A	3.33 cd	0 c	0 c	0 d	0 na
11	Pyroxasulfone Boxer Gold	118 2.5	g/ha l/ha	A A	0 e	0 c	0 c	0 d	0 na
12	Pyroxasulfone Trifluralin Boxer Gold	118 2 2.5	g/ha l/ha l/ha	A A A	0 e	0 c	0 c	0 d	0 na
13	Overwatch Trifluralin	1.25 2	l/ha l/ha	A A	5 bc	0 c	0 c	0 d	0 na
14	Overwatch Pyroxasulfone	1.25 118	l/ha g/ha	A A	8.33 a	0 c	0 c	0 d	0 na
15	Overwatch Boxer Gold	1.25 2.5	l/ha l/ha	A A	8.33 a	0 c	0 c	0 d	0 na
16	Overwatch Trifluralin Boxer Gold	1.25 2 2.5	l/ha l/ha l/ha	A A A	6.67 ab	0 c	0 c	0 d	0 na
17	Trifluralin Mateno	2 1	l/ha l/ha	A B	3.33 cd	8.33 b	13.33 b	3.33 bc	0 na
18	Terrain Flow Mateno	125 1	ml/ha l/ha	A B	6.67 ab	8.33 b	15 b	1.67 cd	0 na
19	Boxer Gold Mateno	2.5 1	l/ha l/ha	A B	0 e	8.33 b	13.33 b	5 b	0 na
20	Trifluralin FMC410	2 1.7	l/ha kg/ha	A B	0 e	13.33 a	21.67 a	3.33 bc	0 na
21	Overwatch Prosulfocarb	1.25 3	l/ha l/ha	A B	8.33 a	0 c	0 c	0 d	0 na
22	Overwatch Mateno	1.25 1	l/ha l/ha	A B	8.33 a	8.33 b	16.67 b	11.67 a	0 na
LSD P=.05					2.894	2.278	3.478	2.552	.
Standard Deviation					1.756	1.383	2.111	1.549	0
CV					43.74	65.19	58.05	136.3	0

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

3.1.6 Crop biomass (%), 35 DA-A, 6, 14, 32 and 68 DA-B

Table 6. ANOVA means table of results showing crop biomass (%) 35 DA-A, 6, 14, 32 and 68 DA-B

Rating Date					19/06/2025	25/06/2025	3/07/2025	21/07/2025	26/08/2025
SE Description					Biomass	Biomass	Biomass	Biomass	Biomass
Rating Unit					0-100	0-100	0-100	0-100	0-100
Number of Subsamples					1	1	1	1	1
Rating Timing					A1	A2	A3	A4	A5
Days After First/Last Appl.					35 DA-A	41 DA-A, 6 DA-B	49 DA-A, 14 DA-B	67 DA-A, 32 DA-B	103 DA-A, 68 DA-B
ARM Action Codes									
Trt No.	Treatment Name	Rate	Unit	Appl Code	6	7	8	9	10
1	UTC				100 a	93.33 -	100 a	100 a	100 a
2	Valor EZE	125	ml/ha	A	90 c	90 -	93.33 b	100 a	100 a
	Pyroxasulfone	118	g/ha	A					
3	Valor WG	120	g/ha	A	90 c	90 -	93.33 b	100 a	100 a
	Pyroxasulfone	118	g/ha	A					
4	Trifluralin	2	l/ha	A	91.67 bc	90 -	93.33 b	100 a	100 a
	Terrain Flow	125	ml/ha	A					
5	Spruce/GPH1121	500	ml/ha	A	91.67 bc	91.67 -	91.67 bc	100 a	100 a
6	Trifluralin	2	l/ha	A	91.67 bc	93.33 -	90 bcd	100 a	100 a
	Pyroxasulfone	118	g/ha	A					
7	Pyroxasulfone	118	g/ha	A	93.33 bc	91.67 -	93.33 b	100 a	100 a
	Terrain Flow	125	ml/ha	A					
8	Preceed	118	g/ha	A	93.33 bc	93.33 -	90 bcd	100 a	100 a
	Wingman	600	ml/ha	A					
9	Preceed	118	g/ha	A	91.67 bc	90 -	91.67 bc	100 a	100 a
	Saffire	240	ml/ha	A					
	Wingman	480	ml/ha	A					
10	Luximax	500	ml/ha	A	91.67 bc	91.67 -	88.33 cde	98.33 ab	100 a
	Voraxor	200	ml/ha	A					
11	Pyroxasulfone	118	g/ha	A	95 b	93.33 -	91.67 bc	100 a	100 a
	Boxer Gold	2.5	l/ha	A					
12	Pyroxasulfone	118	g/ha	A	93.33 bc	93.33 -	88.33 cde	100 a	100 a
	Trifluralin	2	l/ha	A					
	Boxer Gold	2.5	l/ha	A					
13	Overwatch	1.25	l/ha	A	95 b	90 -	91.67 bc	100 a	100 a
	Trifluralin	2	l/ha	A					
14	Overwatch	1.25	l/ha	A	93.33 bc	90 -	93.33 b	100 a	100 a
	Pyroxasulfone	118	g/ha	A					
15	Overwatch	1.25	l/ha	A	95 b	91.67 -	93.33 b	100 a	100 a
	Boxer Gold	2.5	l/ha	A					
16	Overwatch	1.25	l/ha	A	91.67 bc	93.33 -	90 bcd	100 a	100 a
	Trifluralin	2	l/ha	A					
	Boxer Gold	2.5	l/ha	A					
17	Trifluralin	2	l/ha	A	95 b	95 -	88.33 cde	98.33 ab	100 a
	Mateno	1	l/ha	B					
18	Terrain Flow	125	ml/ha	A	93.33 bc	95 -	85 e	96.67 bc	98.33 b
	Mateno	1	l/ha	B					
19	Boxer Gold	2.5	l/ha	A	93.33 bc	91.67 -	91.67 bc	98.33 ab	100 a
	Mateno	1	l/ha	B					
20	Trifluralin	2	l/ha	A	93.33 bc	93.33 -	86.67 de	93.33 d	96.67 c
	FMC410	1.7	kg/ha	B					
21	Overwatch	1.25	l/ha	A	95 b	100 -	91.67 bc	96.67 bc	100 a
	Prosulfocarb	3	l/ha	B					
22	Overwatch	1.25	l/ha	A	95 b	95 -	90 bcd	95 cd	95 d
	Mateno	1	l/ha	B					
LSD P=.05					4.47	5.809	4.803	2.352	1.417
Standard Deviation					2.713	3.525	2.915	1.428	0.86
CV					2.91	3.81	3.2	1.44	0.86

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

3.1.7 Yield data (t/ha), 184 DA-A/ 149 DA-B

Table 7. ANOVA means table of results showing yield data (t/ha) at 184 DA-A/ 149 DA-B.

Rating Date						15/11/2025
SE Description						Yield
Rating Unit						T-MET
Number of Subsamples						1
Rating Timing						H1
Days After First/Last Appl.						184 DA-A, 149 DA-B
ARM Action Codes						
Trt No.	Treatment Name	Rate	Unit	Appl Code		1
1	UTC				4.19	d
2	Valor EZE	125	ml/ha	A	5.7	abc
	Pyroxasulfone	118	g/ha	A		
3	Valor WG	120	g/ha	A	6.22	a
	Pyroxasulfone	118	g/ha	A		
4	Trifluralin	2	l/ha	A	5.6	abc
	Terrain Flow	125	ml/ha	A		
5	Spruce/GPH1121	500	ml/ha	A	5.94	ab
6	Trifluralin	2	l/ha	A	5.8	abc
	Pyroxasulfone	118	g/ha	A		
7	Pyroxasulfone	118	g/ha	A	5.86	abc
	Terrain Flow	125	ml/ha	A		
8	Preceed	118	g/ha	A	6	ab
	Wingman	600	ml/ha	A		
9	Preceed	118	g/ha	A	5.77	abc
	Saffire	240	ml/ha	A		
	Wingman	480	ml/ha	A		
10	Luximax	500	ml/ha	A	4.98	cd
	Voraxor	200	ml/ha	A		
11	Pyroxasulfone	118	g/ha	A	5.89	ab
	Boxer Gold	2.5	l/ha	A		
12	Pyroxasulfone	118	g/ha	A	5.49	abc
	Trifluralin	2	l/ha	A		
	Boxer Gold	2.5	l/ha	A		
13	Overwatch	1.25	l/ha	A	5.22	bc
	Trifluralin	2	l/ha	A		
14	Overwatch	1.25	l/ha	A	5.34	abc
	Pyroxasulfone	118	g/ha	A		
15	Overwatch	1.25	l/ha	A	5.38	abc
	Boxer Gold	2.5	l/ha	A		
16	Overwatch	1.25	l/ha	A	5.21	bc
	Trifluralin	2	l/ha	A		
	Boxer Gold	2.5	l/ha	A		
17	Trifluralin	2	l/ha	A	5.28	bc
	Mateno	1	l/ha	B		
18	Terrain Flow	125	ml/ha	A	6.1	ab
	Mateno	1	l/ha	B		
19	Boxer Gold	2.5	l/ha	A	6.23	a
	Mateno	1	l/ha	B		
20	Trifluralin	2	l/ha	A	5.68	abc
	FMC410	1.7	kg/ha	B		
21	Overwatch	1.25	l/ha	A	6.12	ab
	Prosulfocarb	3	l/ha	B		
22	Overwatch	1.25	l/ha	A	6.11	ab
	Mateno	1	l/ha	B		
LSD P=.05						0.754
Standard Deviation						0.449
CV						7.95
Grand Mean						5.648
Levene's F^						2.04*
Levene's Prob(F)						0.00*
Rank X2						.
P(Rank X2)						.
Shapiro-Wilk^						0.9736
P(Shapiro-Wilk)^						0.8085
Skewness^						-0.0904
P(Skewness)^						0.9485
Kurtosis^						1.3058
P(Kurtosis)^						0.342
Randomized Complete Block (RCB) AIC						93.8303
Nearest row and column neighbour (Papadakis) AIC						SPa 77.5585

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

3.2 Figures

3.2.1 Annual ryegrass control (%), 35 DA-A, 6, 14 and 32 DA-B

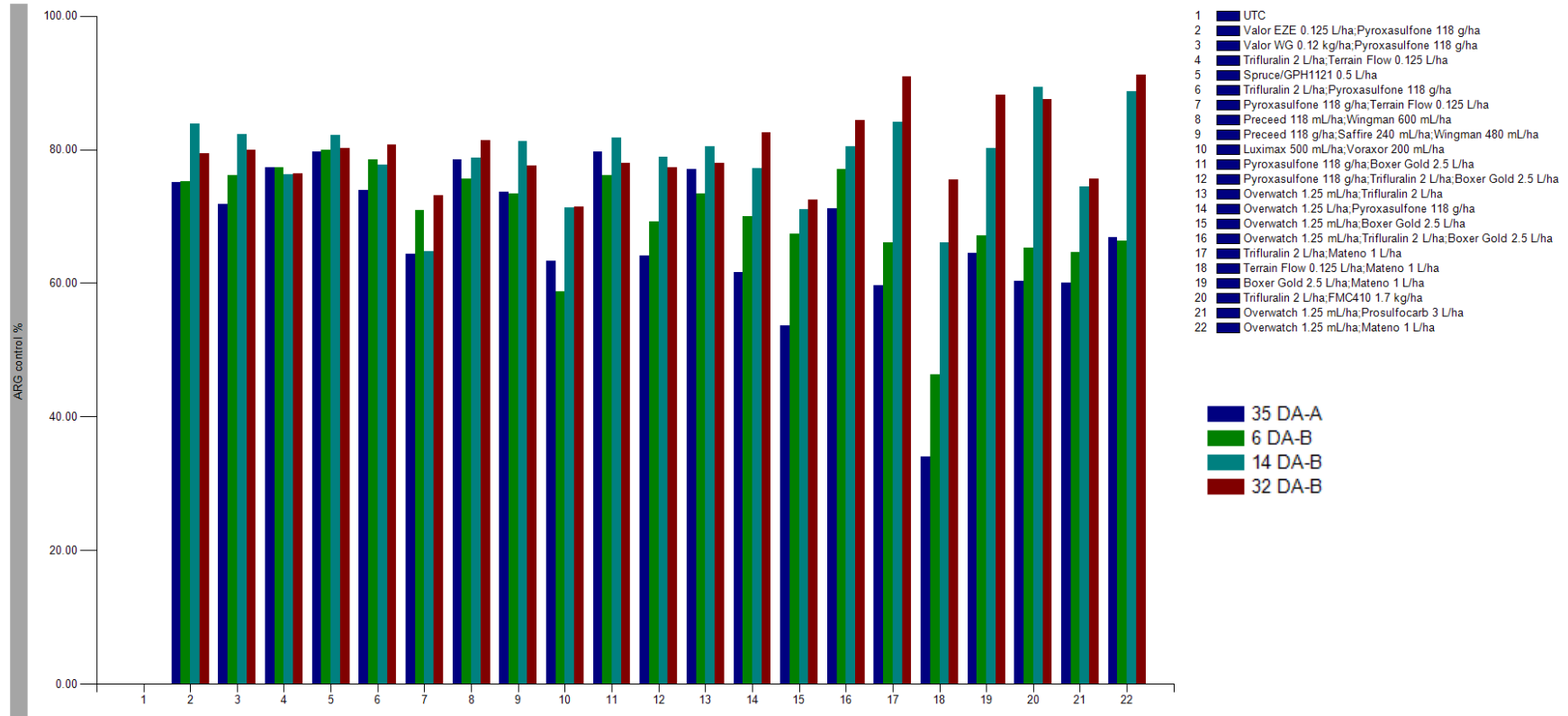


Figure 1. Annual ryegrass control (%) at 35 DA-A, 6, 14, 32 and 68 DA-B, for all treatments.

3.2.2 Annual ryegrass panicle control (%), 68 DA-B

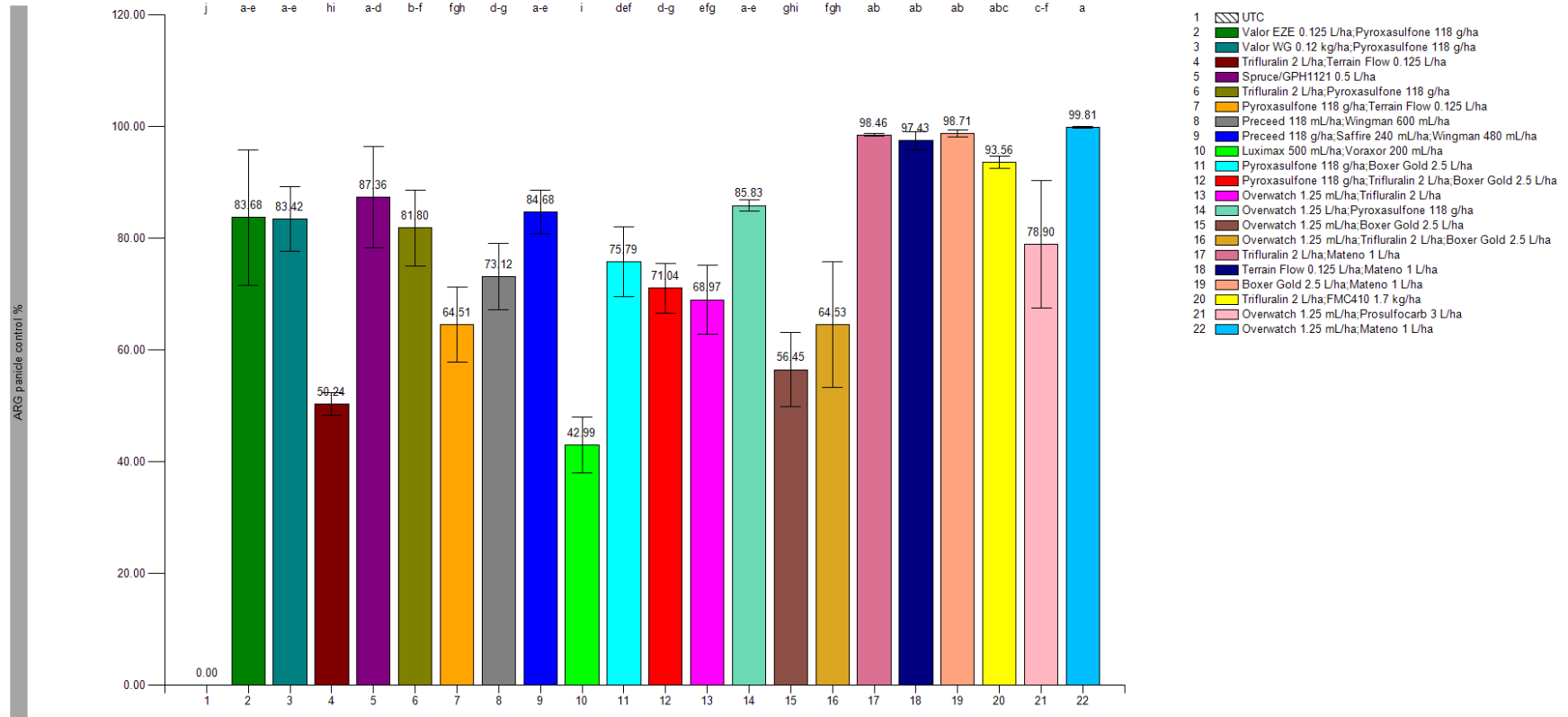


Figure 2. Annual ryegrass panicle control (%), 68 DA-B, for all treatments.

3.2.3 Volunteer canola control (%), 35 DA-A, 6, 14, 32 DA-B

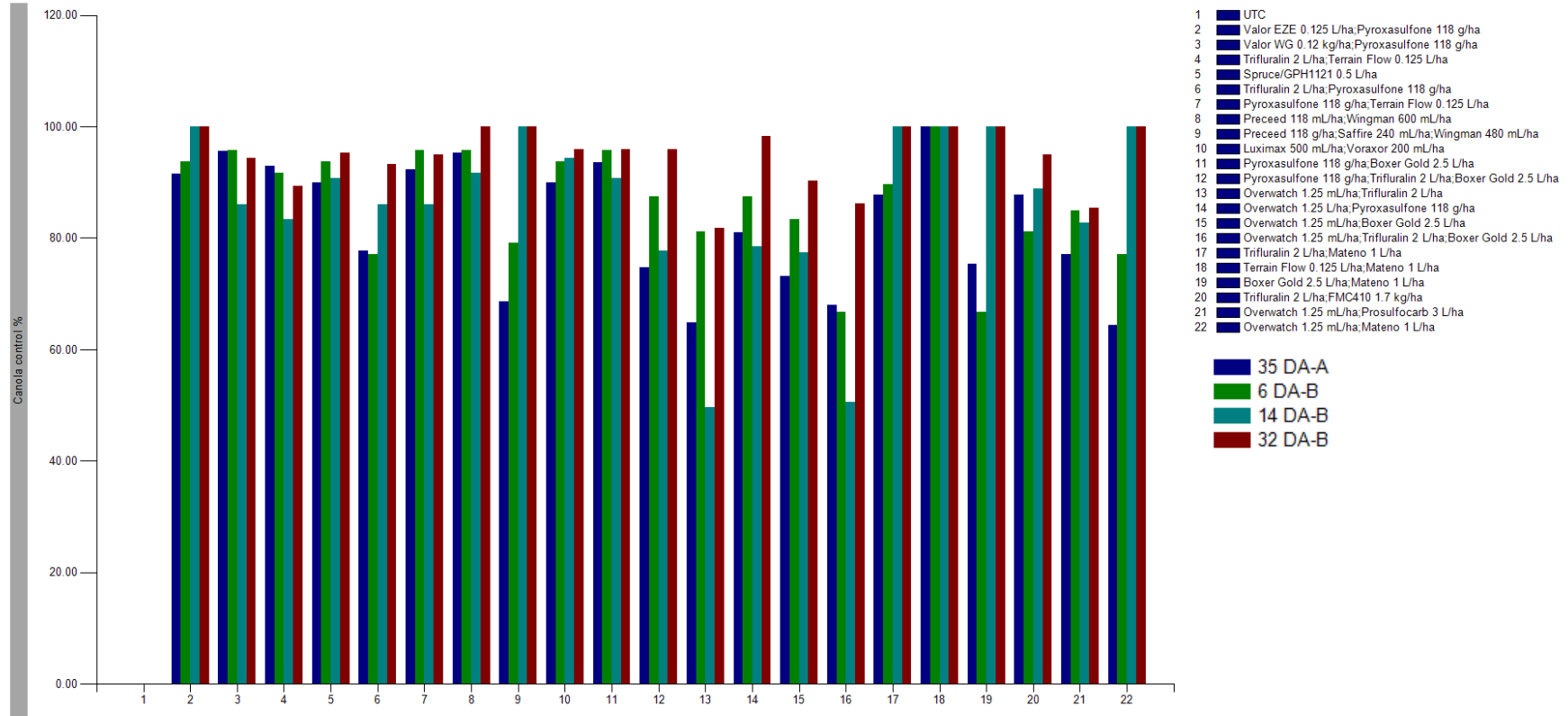


Figure 3. Volunteer canola control (%) at 35 DA-A, 6, 14, 32 DA-B, for all treatments.

4. Chronology of events

Date	Event	Crop stage	Days after application
15 th May 2025	IBS application	-	-
15 th May 2025	Sowing	-	0 DA-A
19 th June 2025	EPE application	Z13	34 DA-A
19 th June 2025	Assessment 1	Z13	34 DA-A/0 DA-B
25 th June 2025	Assessment 2	Z21	40 DA-A/6 DA-B
3 rd July 2025	Assessment 3	Z22	48 DA-A/14 DA-B
21 st July 2025	Assessment 4	Z30	66 DA-A/32 DA-B
26 th August 2025	Assessment 5	Z55	103 DA-A/68 DA-B
15 th November 2025	Harvest	Z92	184 DA-A/ 149 DA-B

5. Appendices

5.1 Experimental details

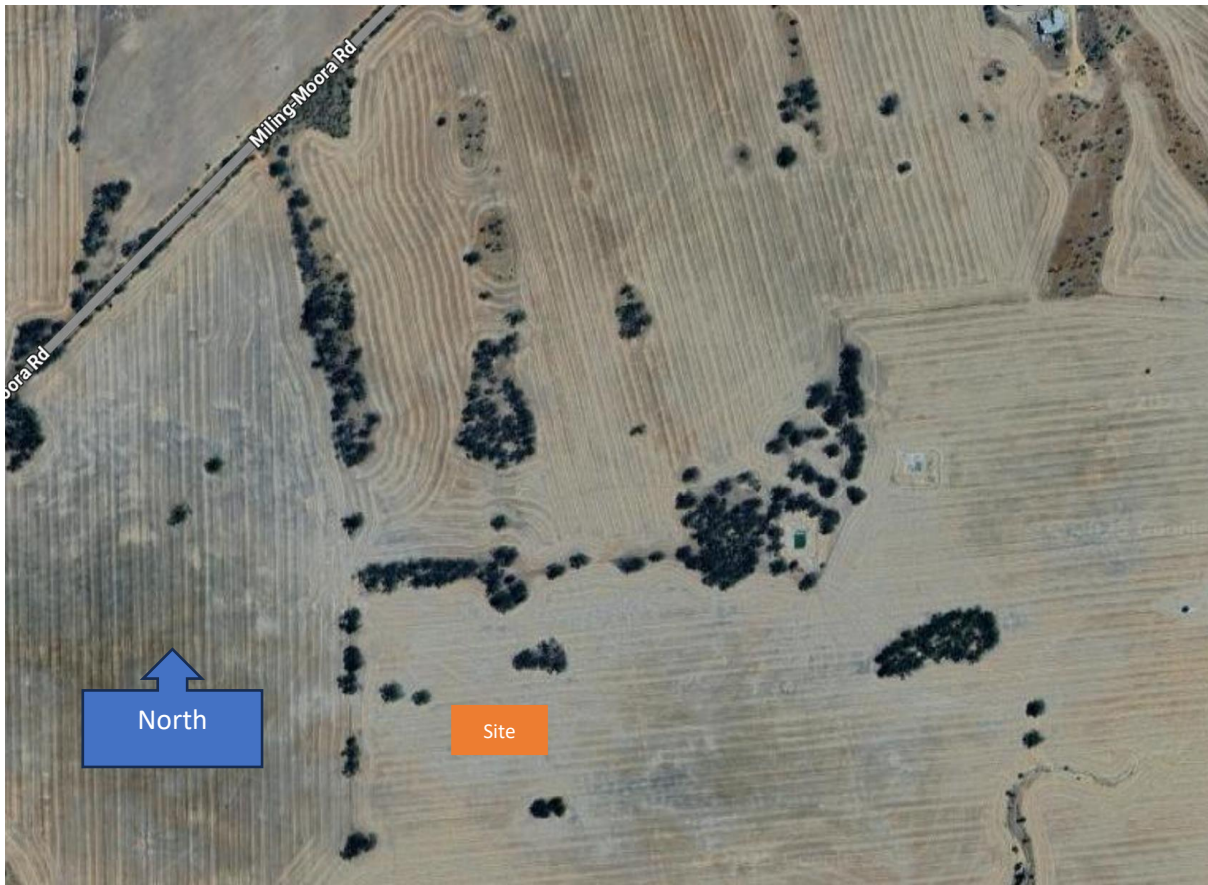
Experimental details	
Location	Miling-Moora Road, Moora
GPS	-30.616972, 116.090333
Co-operator	Kieran Popplewell
Crop	Wheat
Variety	Vixen
Previous Crop	Canola
Pest	Annual Ryegrass (<i>Lolium rigidum</i>) Volunteer Canola (<i>Brassica napus</i>)
Pest pressure	Moderate
Soil Type	Grey clay
Trial design	RCB
Replications	3
Treatment application	IBS and EPE
Plot width sprayed	2m
Sowing date	15 th May 2025
Stubble Load	Low
Seeding machine	Precision trial cone seeder fitted with knife points and trailing press wheels. Liquids applied with FMSA Friction flow system.
Seeding rate	80 kg/ha
Seeding depth	30mm
Plot size	2.5 x 12m
Fertiliser and rate	MacroPro Boost + K-Till Boost @ 65 Kg/ha
Harvest date	15 th November 2025

5.2 Treatment application details

Treatment application	A	B
Application Timing	IBS	EPE
Crop Stage	-	3 leaf
Weed Stage	-	2 leaf
Date	15 th May 2025	19 th June 2025
Time	9:45am to 11:00am	14:00am to 15:00am
Cloud cover (%)	0	0
Temperature (°C)	17.9	20.7
Relative Humidity (%)	69.9	73.9
Delta T (°C)	12.3	1.8
Wind Speed Km/hr	2.9	4
Wind Direction	E	WSW
Soil moisture	Dry sown	Moisture at soil surface
Dew (°C)	7.3	16.4

Application equipment	A	B
Application equipment	Brolga 2m Hand boom	Brolga 2m Hand boom
Nozzles	110 – 015 Agrotop - Flat fan air induction	110 – 015 Agrotop - Flat fan air induction
Number of nozzles	4	4
Nozzle spacing	50cm	50cm
Boom height	50cm above canopy	50cm above canopy
Water volume	100 L/ha	100 L/ha
Spraying pressure	150 kPa	150 kPa
Mix size	2 L	2 L
Spray Quality	Coarse	Coarse
Propellant	CO ₂	CO ₂

5.3 Trial site location



Trial location, Miling-Moora Road, Moora.

5.4 Growing conditions

Meteorological data was obtained from the Moora station, 10 km away.

Day	April			May			June			July			August			September			October			November		
	Min temp °C	Max temp °C	Rain mm	Min temp °C	Max temp °C	Rain mm	Min temp °C	Max temp °C	Rain mm	Min temp °C	Max temp °C	Rain mm	Min temp °C	Max temp °C	Rain mm	Min temp °C	Max temp °C	Rain mm	Min temp °C	Max temp °C	Rain mm	Min temp °C	Max temp °C	Rain mm
1st	17	35.7	0	12.2	32.4	0	9.8	22.8	0.2	11.5	20.6	0.2	4.1	19.6	0	1.5	21	0	3.5	24.2	0	11.9	24.6	0
2nd	18.5	34	0	10.4	28.4	0	9.8	26.2	0	12.9	21.4	0	7.2	19.1	0	2.4	21.7	0.2	3.9	30.3	0	5.6	27.2	0
3rd	19.7	34.1	0	14.3	23.6	1	15.4	22.8	4.8	11.5	19.1	12.8	10.8	16.5	9.8	5.7	22.8	0	5.1	25	0	9.5	32.3	0
4th	19.5	29.9	0	10.4	23.7	0	15	20.3	13	5.1	17.8	1.2	5.5	15.7	4.2	6.7	20.1	0.2	12	25.1	0.2	18.4	30.5	0
5th	17.9	32	1.8	6.9	25.9	0.2	13.4	20.9	6.4	3.1	17.3	0	5.7	17.7	1.6	6.9	17.8	0.2	12	16.6	12.4	12.5	27.2	9.2
6th	13.9	33.5	1	9.1	25.6	0	6.7	18.4	0.2	3.5	21.4	0.2	5.7	18.6	0	9.6	16.6	14	6.1	21.5	1	13.9	25.2	0.2
7th	14.7	31.9	0	9.5	27.8	0	4.5	20.1	0.2	11.7	17.7	34.2	4.3	19.8	0.2	6.9	17.1	3.6	6.4	21.2	0	10.6	28.6	0
8th	14.8	30.9	0	14.1	32.2	0	5.8	22.6	0	6.7	15.8	2.8	9.7	21.2	0	7	15.9	8.6	7.1	21.5	0	12.6	30.8	0.2
9th	14.3	30.3	0	13.4	34.4	0	3.3	23.3	0	2.8	16.2	2.6	13.1	21	0.8	2.4	16.6	0.2	1.9	23	0.2	13.3	31.9	0
10th	10.6	32.2	0	9	29.2	0	6.6	21.5	0	-1.7	16.3	0.2	10.3	17	14	1.9	18.6	0	2.8	24	0	14.1	32.7	0
11th	14.2	37	0	12.4	28	0	6.4	18.7	0	0.3	19.4	0.2	3	19.1	1	3.3	21.2	0.2	3.5	24.5	0	15.5	35.2	0
12th	16.2	31.3	0	8.3	30.5	0	4.1	18.4	0.2	8.3	18	1	1.8	22.4	0.2	5.7	25.4	0	4.7	28.4	0	12.9	34.6	0
13th	16.1	24.3	0.2	11.1	25.4	0	5.9	20.9	0	3.7	19.1	3.2	5.4	24.7	0	10.5	23	0	5.4	29.3	0	10.3	29.6	0
14th	16.3	28.3	3.6	12.1	27	0	5.1	20.1	0.4	7.8	17	2.4	9	17.5	6.4	14.1	18.8	4.8	7.3	29.4	0.2	9.1	29.2	0
15th	10.2	28.4	0	8.6	27.4	0	9	19.9	0.2	2.4	16	3	1.4	16.1	0	7.7	16.8	4.8	10.5	25	0	10	29.6	0
16th	11.2	31.6	0.2	6.6	26.4	0	6	23.4	0.2	8.3	17.8	0.4	0.6	17.8	0	2.5	18.4	0	5.4	29.1	0	10.1	33.2	0
17th	16.9	26.9	7.8	10.1	26.3	0	7.5	23.5	0	0.7	16.8	0.4	5.8	17.8	0.2	5.3	19.6	0.2	6.6	35.3	0	12.2	39.9	0
18th	11.9	22.4	0	9.4	25.9	0	12.4	20.8	5.6	2.9	17.6	0.2	6.1	23.4	0	6.8	19.3	1.6	12.5	24.4	0.6	19.2	34.4	0.4
19th	9.5	21.4	0	5	26.7	0	13.4	21.9	1	3.9	19	1.6	9.7	21	0	4.1	21.8	0.2	8.2	24.2	0	17.5	33.5	1.8
20th	8.7	25	0	8.3	22.8	0	13.1	18.9	0.6	8.1	19	0	12.4	18.9	18.8	5.5	23.4	0	5.8	22	0.2	15.8	33.8	1
21st	14.5	30.4	0	4.5	25.5	0	8.9	14.3	20.2	2.5	15.6	13.4	8.9	18.1	6.2	6.5	26.5	0.2	5.4	23.2	3.2	15.2	32.9	20.8
22nd	16.5	35.9	0	3.4	25.3	0	9.2	17.2	7.2	8	17	0.8	3.5	20.6	0.2	6.4	26.4	0	5.8	26.6	0	17.1	27.5	0
23rd	17.9	25.9	0.4	11.5	18.3	6.8	7.7	17.5	1	9.2	14.5	0.8	4.4	17.4	0	7.6	26.9	0	7.8	24.8	0	12.6	23.6	0.6
24th	12.5	22.4	1.8	2.5	18.8	0	3.2	17.1	0.2	6.5	13.7	20	9.9	16.8	2.8	3.9	29.6	0	5.5	21.9	0	8.8	24.2	0
25th	7.2	20.8	0	6.6	20.9	0.2	2.4	18	0	-0.8	14	0	6.5	11.6	14.2	3.9	29.5	0	8.6	25.2	1.4	10.8	25.9	0
26th	10.5	20.2	0	7.9	17.8	1.8	0.8	20.4	0.2	-1	14.6	0.2	5	16.1	24.6	5.5	23.7	0	3.4	26.3	0	9.7	28.9	0
27th	3.7	23	0	7.2	21.6	0	2	19.2	0	0	12.7	2	5.6	15.4	4.8	4.6	25.9	0.2	4.8	29.1	0	8.3	26.7	0
28th	6	24.3	0	9.3	26.8	0	6.2	19.4	0	5.6	11.4	35.4	3.6	19.1	9	5.8	21.7	0	13.3	36.6	0	7.3	28.8	0
29th	11.6	26.3	0	13.5	21.6	0	7.5	18.5	0	1.1	15.7	2.6	4	16.9	0	6.2	22.3	0.2	11.3	23.5	0.2	9.9	32.4	0
30th	12.9	29.5	0	14.6	22.4	10.8	10.2	19.5	0	4.1	16.4	0.2	3.1	18.5	0.2	3	23.3	0.2	5.2	25.4	0	13.2	36.3	0
31st				13.5	22.9	8.8				1.9	17.9	0.2							5.8	27.4	0			
Total monthly rainfall (mm)			16.8			29.6			61.8			142.2			119.2			39.6			19.6			34.2

Application
Assessment
Sowing
Harvest

5.5 Assessment details

5.5.1 Crop safety

Crop phytotoxicity: Visual assessments on a whole plot basis, relative to untreated control plots within the trial. Assessment based on a 0-100% scale where 0 = no crop damage and 100 = total loss of crop. Refer to table below.

% Rating	Effects
0	Non-Evident
10	Negligible: Discoloration, distortion and/or stunting barely seen
20*	Slight: discoloration, distortion and/or stunting clearly seen
30	Moderate damage: moderate discoloration, marked distortion and/or stunting, Recovery expected
40	Substantial damage: much discoloration, distortions and/or stunting. Some damage irreversible
50	Majority of plants damaged, may irreversibly; some necrosis, discoloration, and distortions severe
60	Nearly all plants damaged; most irreversibly; some plants killed (<40%); substantial necrosis and distortion
70	Severe: substantial number of plants killed (40-60%); much necrosis and distortion
80	Very severe: majority of plants killed (60-80%); remainder show much necrosis and wilting
90	Remaining live plants (<20%) mostly discoloured and distorted permanently or desiccated
100	Complete loss of plants

**For crop safety, this is the maximum considered commercially acceptable.*

Crop Biomass: A visual assessment on a whole plot, relative to untreated control plots within the trial. Crop biomass is rated on a scale of 0 – 100% where 100 = zero loss of vigour or biomass, equal to UTC and 0 = total crop death.

Grain yield: Plots were harvested using a small plot trial harvester. Grain was converted from kg/plot to t/ha.

5.5.2 Efficacy

Weed counts: The number of plants counted within a 50 cm x 50 cm quadrat (.25m²), sampling a minimum of 3 sub samples per plot and record as number of plants per meter squared (plants/m²).

Weed percentage control (Abbott % of untreated): Weed counts are taken using a 50 cm x 50 cm quadrat (0.25 m²), with a minimum of three subsamples recorded per plot. Counts are converted to plants per square meter. Percent weed control is then calculated in ARM using Abbott's transformation, which expresses control as a percentage relative to the untreated check.

5.6 Statistical analysis

Data was recorded in Agriculture Research Manager and statistically analysed using an analysis of variance with mean values summarised and separated using Least Significant Test at the 5% level of probability.

5.7 Protocol deviations

There were no recorded reasons why the data generated at that site should be treated as unrepresentative.

Yield data were analysed using a spatial method, incorporating the Papadakis nearest row and column neighbour adjustment to account for field variation. Replicate 2 was excluded from the yield analysis due to variability caused by waterlogging

6. Photos

6.1 Assessment 2 – 40 DA-A/ 6 DA-B, 25th June 2025



Treatment 1: Untreated control, 6 DA-B



Treatment 2: Valor EZE 0.125 L/ha + Pyroxasulfone 118 g/ha, 6 DA-B



Treatment 3: Valor WG 0.12 kg/ha + Pyroxasulfone 118 g/ha, 6 DA-B



Treatment 4: Trifluralin 2 L/ha + Terrain Flow 0.125 L/ha, 6 DA-B



Treatment 5: Spruce/GPH1121 0.5 L/ha, 6 DA-B



Treatment 6: Trifluralin 2 L/ha + Pyroxasulfone 118 g/ha, 6 DA-B



Treatment 7: Pyroxasulfone 118 g/ha + Terrain Flow 0.125 L/ha, 6 DA-B



Treatment 8: Preceed 118 g/ha + Wingman 600 mL/ha, 6 DA-B



Treatment 9: Preceed 118 g/ha + Saffire 240 mL/ha + Wingman 480 mL/ha, 6 DA-B



Treatment 10: Luximax 500 mL/ha + Voraxor 200 mL/ha, 6 DA-B



Treatment 11: Pyroxasulfone 118 g/ha + Boxer Gold 2.5 L/ha, 6 DA-B



Treatment 12: Pyroxasulfone 118 g/ha + Trifluralin 2 L/ha + Boxer Gold 2.5 L/ha, 6 DA-B



Treatment 13: Overwatch 1.25 L/ha + Trifluralin 2 L/ha, 6 DA-B



Treatment 14: Overwatch 1.25 L/ha + Pyroxasulfone 118 g/ha, 6 DA-B



Treatment 15: Overwatch 1.25 L/ha + Boxer Gold 2.5 L/ha, 6 DA-B



Treatment 16: Overwatch 1.25 L/ha + Trifluralin 2 L/ha + Boxer Gold 2.5 L/ha, 6 DA-B



Treatment 17: Trifluralin 2 L/ha + Mateno 1 L/ha, 6 DA-B



Treatment 18: Terrain Flow 0.125 L/ha + Mateno 1 L/ha, 6 DA-B



Treatment 19: Boxer Gold 2.5 L/ha + Mateno 1 L/ha, 6 DA-B



Treatment 20: Trifluralin 2 L/ha + FMC410 1.7 kg/ha, 6 DA-B



Treatment 21: Overwatch 1.25 L/ha + Prosulfocarb 3 L/ha, 6 DA-B



Treatment 22: Overwatch 1.25 L/ha + Mateno 1 L/ha, 6 DA-B

6.2 Assessment 3 – 66 DA-A/ 32 DA-B, 21st July 2025



Treatment 1: Untreated control, 32 DA-B



Treatment 2: Valor EZE 0.125 L/ha + Pyroxasulfone 118 g/ha, 32 DA-B



Treatment 3: Valor WG 0.12 kg/ha + Pyroxasulfone 118 g/ha, 32 DA-B



Treatment 4: Trifluralin 2 L/ha + Terrain Flow 0.125 L/ha, 32 DA-B



Treatment 5: Spruce/GPH1121 0.5 L/ha, 32 DA-B



Treatment 6: Trifluralin 2 L/ha + Pyroxasulfone 118 g/ha, 32 DA-B



Treatment 7: Pyroxasulfone 118 g/ha + Terrain Flow 0.125 L/ha, 32 DA-B



Treatment 8: Preceed 118 g/ha + Wingman 600 mL/ha, 32 DA-B



Treatment 9: Preceed 118 g/ha + Saffire 240 mL/ha + Wingman 480 mL/ha, 32 DA-B



Treatment 10: Luximax 500 mL/ha + Voraxor 200 mL/ha, 32 DA-B



Treatment 11: Pyroxasulfone 118 g/ha + Boxer Gold 2.5 L/ha, 32 DA-B



Treatment 12: Pyroxasulfone 118 g/ha + Trifluralin 2 L/ha + Boxer Gold 2.5 L/ha, 32 DA-B



Treatment 13: Overwatch 1.25 L/ha + Trifluralin 2 L/ha, 32 DA-B



Treatment 14: Overwatch 1.25 L/ha + Pyroxasulfone 118 g/ha, 32 DA-B



Treatment 15: Overwatch 1.25 L/ha + Boxer Gold 2.5 L/ha, 32 DA-B



Treatment 16: Overwatch 1.25 L/ha + Trifluralin 2 L/ha + Boxer Gold 2.5 L/ha, 32 DA-B



Treatment 17: Trifluralin 2 L/ha + Mateno 1 L/ha, 32 DA-B



Treatment 18: Terrain Flow 0.125 L/ha + Mateno 1 L/ha, 32 DA-B



Treatment 19: Boxer Gold 2.5 L/ha + Mateno 1 L/ha, 32 DA-B



Treatment 20: Trifluralin 2 L/ha + FMC410 1.7 kg/ha, 32 DA-B



Treatment 21: Overwatch 1.25 L/ha + Prosulfocarb 3 L/ha, 32 DA-B



Treatment 22: Overwatch 1.25 L/ha + Mateno 1 L/ha, 32 DA-B

7. SLR Pre and Early Post Emergent Contributors

