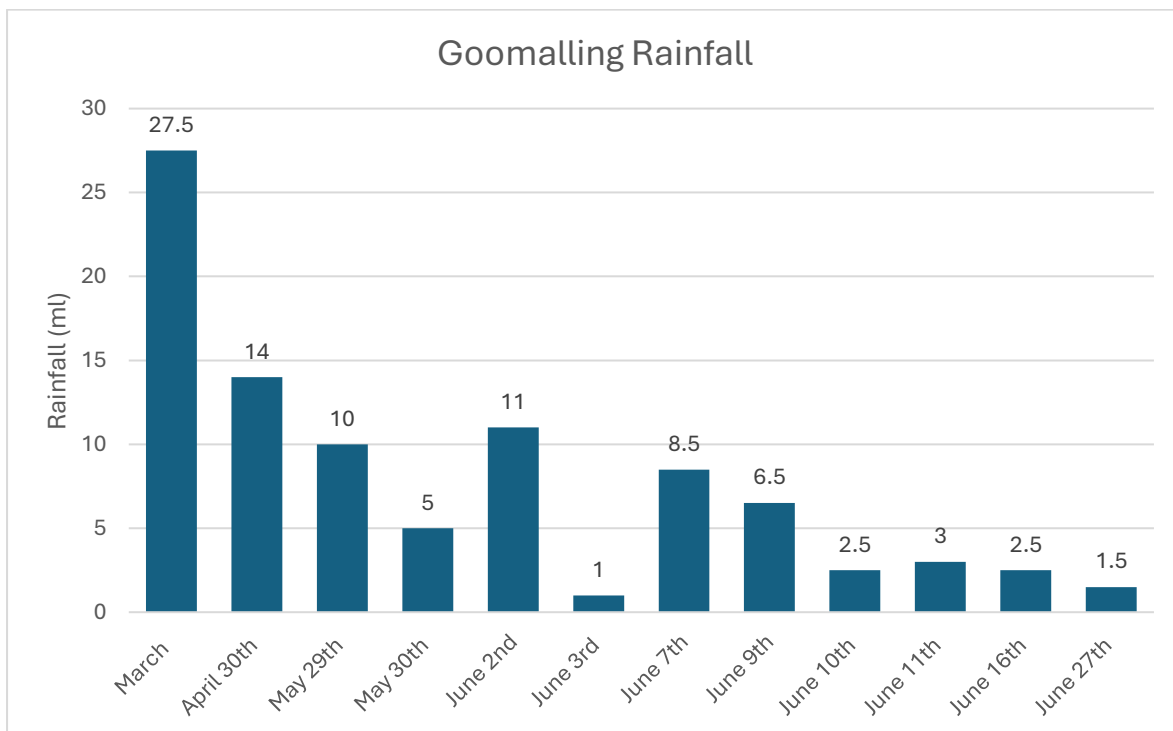


SLR Showpiece Project

Pre and Early Post Emergent

Goomalling

Grower:	Murray Siegert
Grower contact:	0428 232 288
Location:	Goomalling, Goomalling-Calingiri Rd
GPS pin (gate):	-31.237667, 116.766444
GPS pin (site):	-31.233833, 116.770861
Seeding date/ IBS application:	17 th May 2024
Post emergent application date (B):	11 th June 2024
Crop growth stage at application B:	Z12 – 2 leaves emerged
Weed stage at application B:	1 leaf
Crop variety:	Anvil 70 kg/ha
Soil Moisture:	Moisture at 20mm from top of furrow
Soil type:	Gravelly sand
Fertiliser and rate:	Summit Activate/ MOP ratio 75:25 UAN 50 L/ha deep banded
Paddock Rotations:	
2021	Barley
2022	Canola
2023	Wheat



Source: Growers on farm weather station

Randomisation

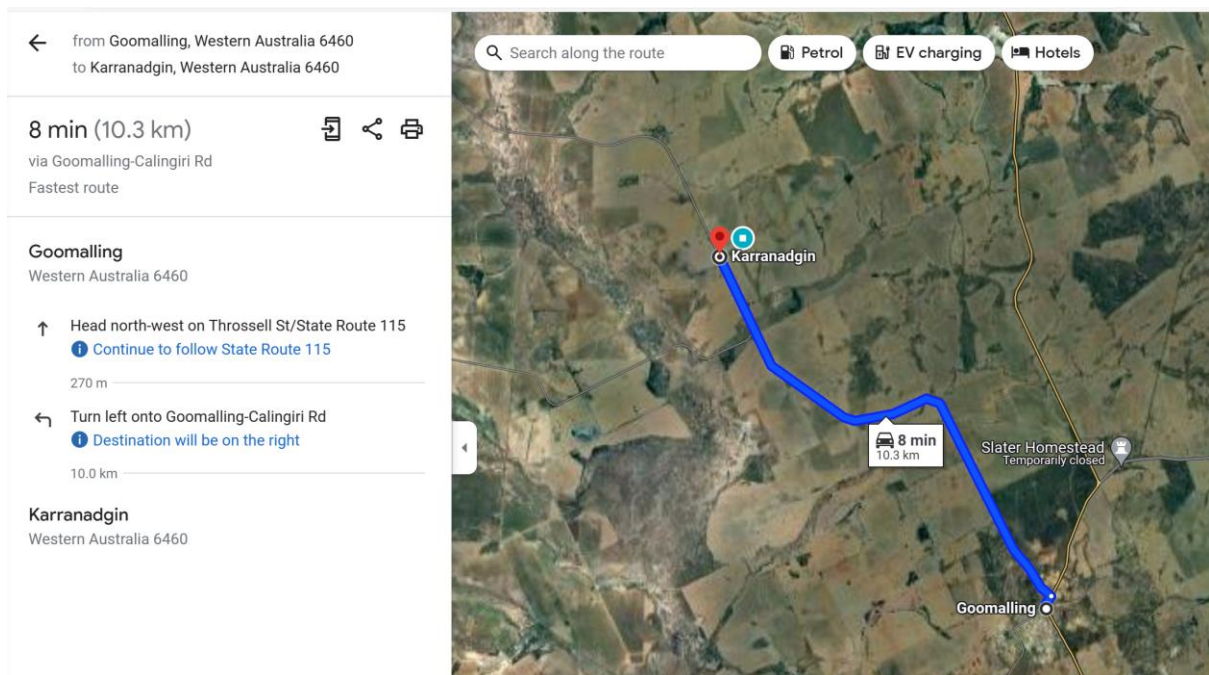
Treatment No.	Treatment name	Rate	Rate unit	Application timing
1	UTC			
2	Terrain Floww	125	mL/ha	IBS
3	Trifluralin	2000	mL/ha	IBS
3	Callisto	200	mL/ha	IBS
4	Pyroxasulfone	118	g/ha	IBS
4	Callisto	200	mL/ha	IBS
5	Pyroxasulfone	118	g/ha	IBS
5	Trifluralin	2000	mL/ha	IBS
5	Callisto	200	mL/ha	IBS
6	Pyroxasulfone	118	g/ha	IBS
6	Terrain Floww	125	mL/ha	IBS
7	Pyroxasulfone	118	g/ha	IBS
7	Boxer Gold	2500	mL/ha	IBS
7	Callisto	200	mL/ha	IBS
8	Pyroxasulfone	118	g/ha	IBS
8	Overwatch	1250	mL/ha	IBS
9	Overwatch	1250	mL/ha	IBS
9	Trifluralin	2000	mL/ha	IBS
9	Boxer Gold	3000	mL/ha	EPE
10	Overwatch	1250	mL/ha	IBS
10	Terrain Floww	125	mL/ha	IBS
11	Luximax	500	mL/ha	IBS
11	Voraxor	200	mL/ha	IBS
12	Villain	1500	mL/ha	IBS
13	Overwatch	1250	mL/ha	IBS
13	Mateno Complete	1000	mL/ha	EPE
14	Trifluralin	2000	mL/ha	IBS
14	Mateno Complete	1000	mL/ha	EPE
15	Terrain Floww	125	mL/ha	IBS
15	Mateno Complete	1000	mL/ha	EPE
16	Boxer Gold	2500	mL/ha	IBS
16	Mateno Complete	1000	mL/ha	EPE
17	Pyroxasulfone	118	g/ha	IBS
17	Boxer Gold	3000	mL/ha	EPE
18	Overwatch	1250	mL/ha	IBS
18	Callisto	150	mL/ha	IBS

301 10	302 6	303 2	304 4	305 3	306 15	307 12	308 5	309 17	310 16	311 9	312 18	313 1	314 7	315 13	316 14	317 8	318 11
201 12	202 7	203 16	204 18	205 2	206 1	207 13	208 4	209 5	210 14	211 15	212 9	213 17	214 8	215 11	216 6	217 10	218 3
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

Site Map – Goomalling



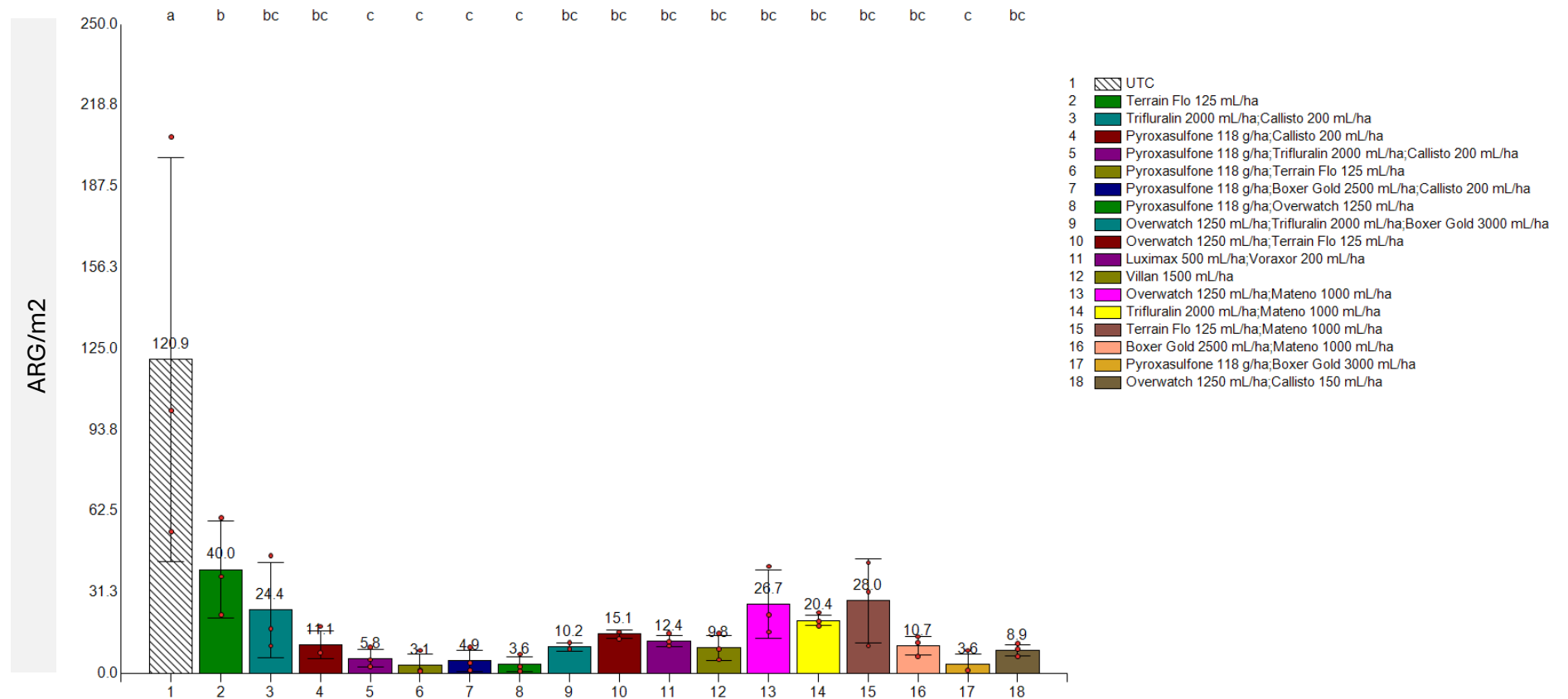
Directions to nearest town



Assessment Data

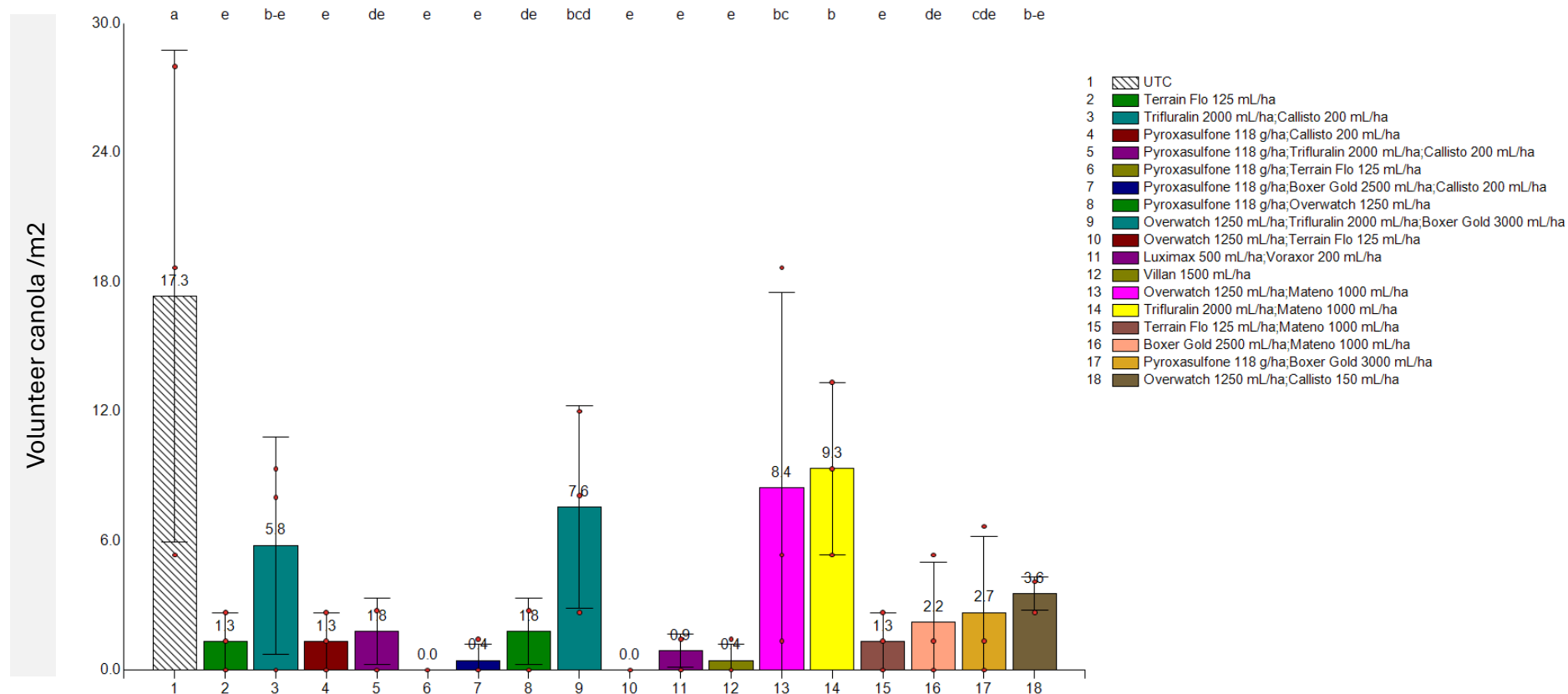
Assessment 1: Pre-Spray – 11th June 2024

ARG counts per m2



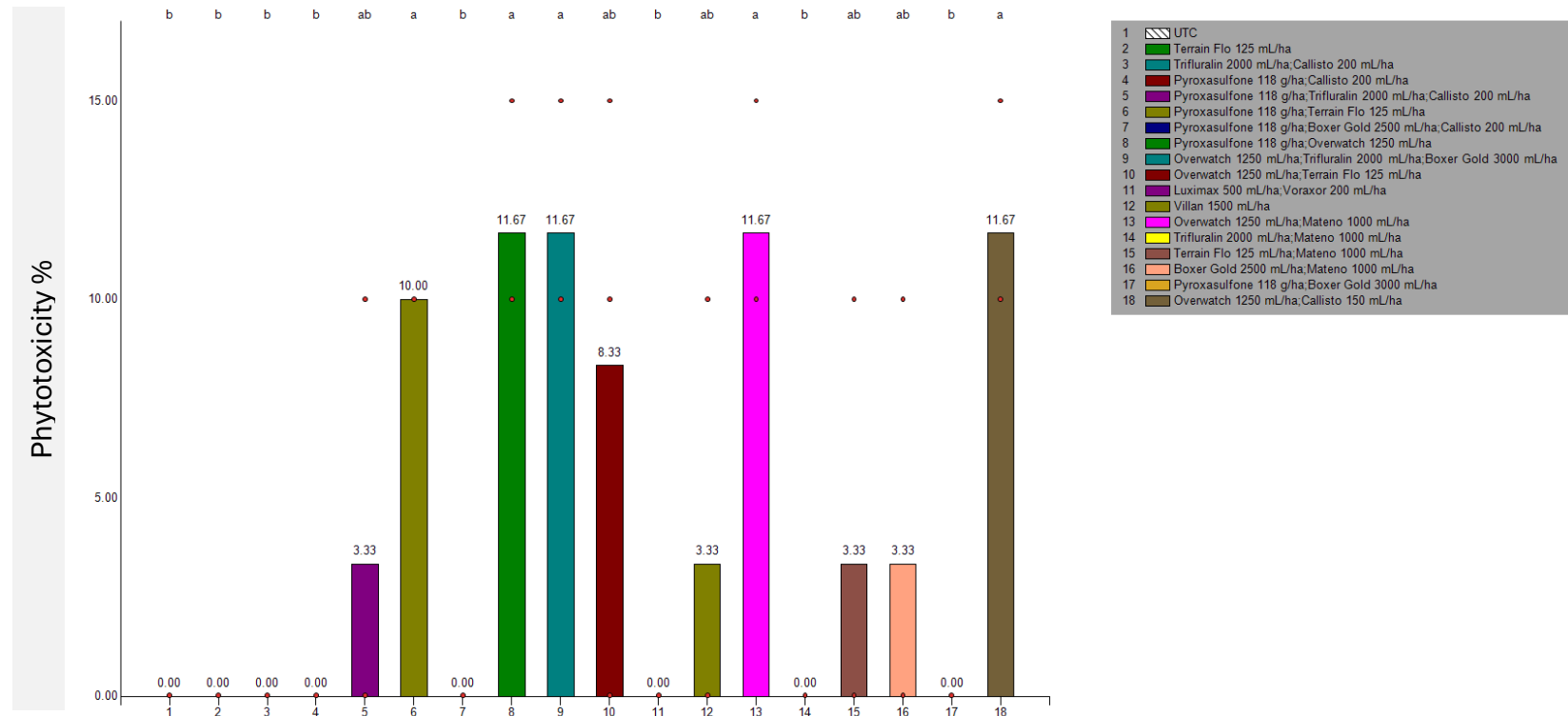
Assessment 1: Pre-Spray – 11th June 2024

Volunteer canola counts per m2



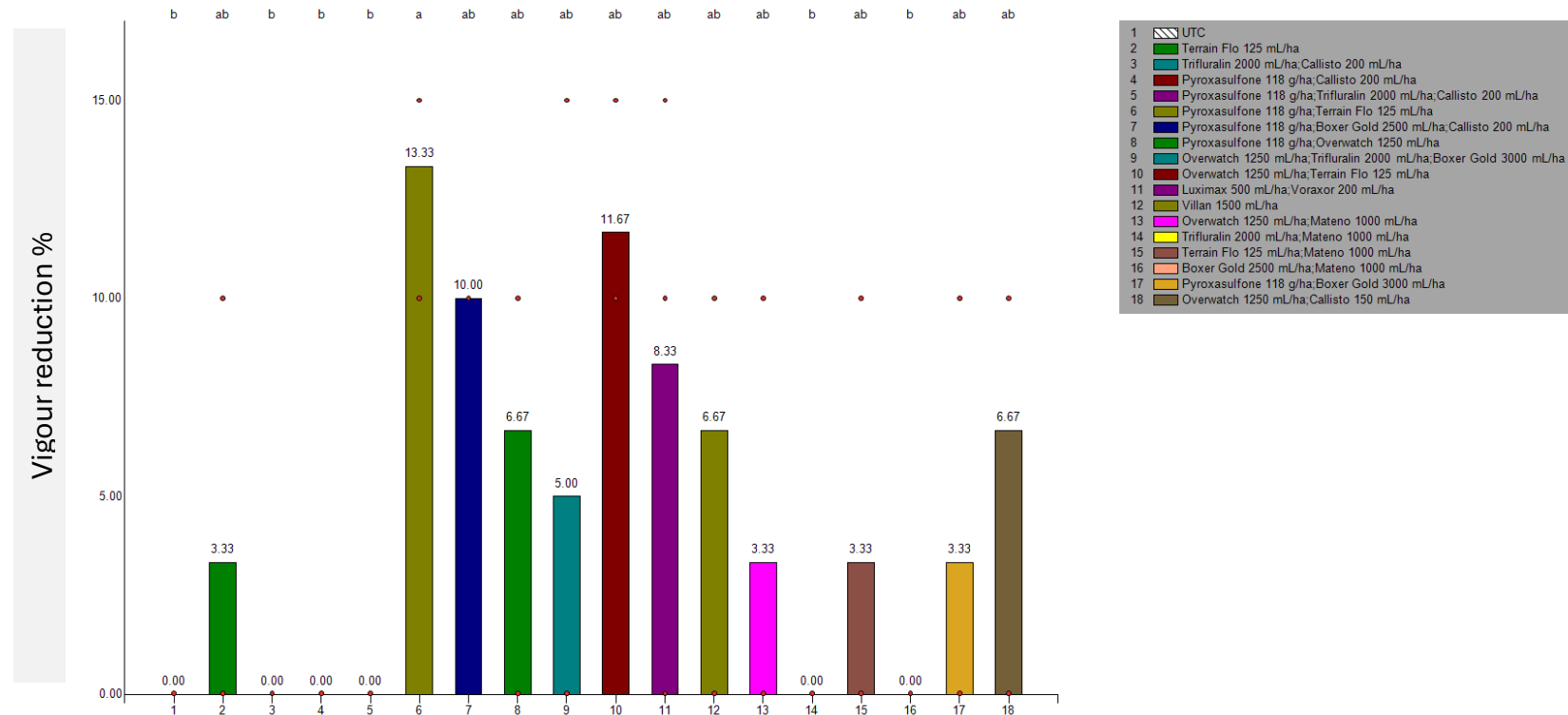
Assessment 1: Pre-Spray – 11th June 2024

Crop Safety – Phytotoxicity



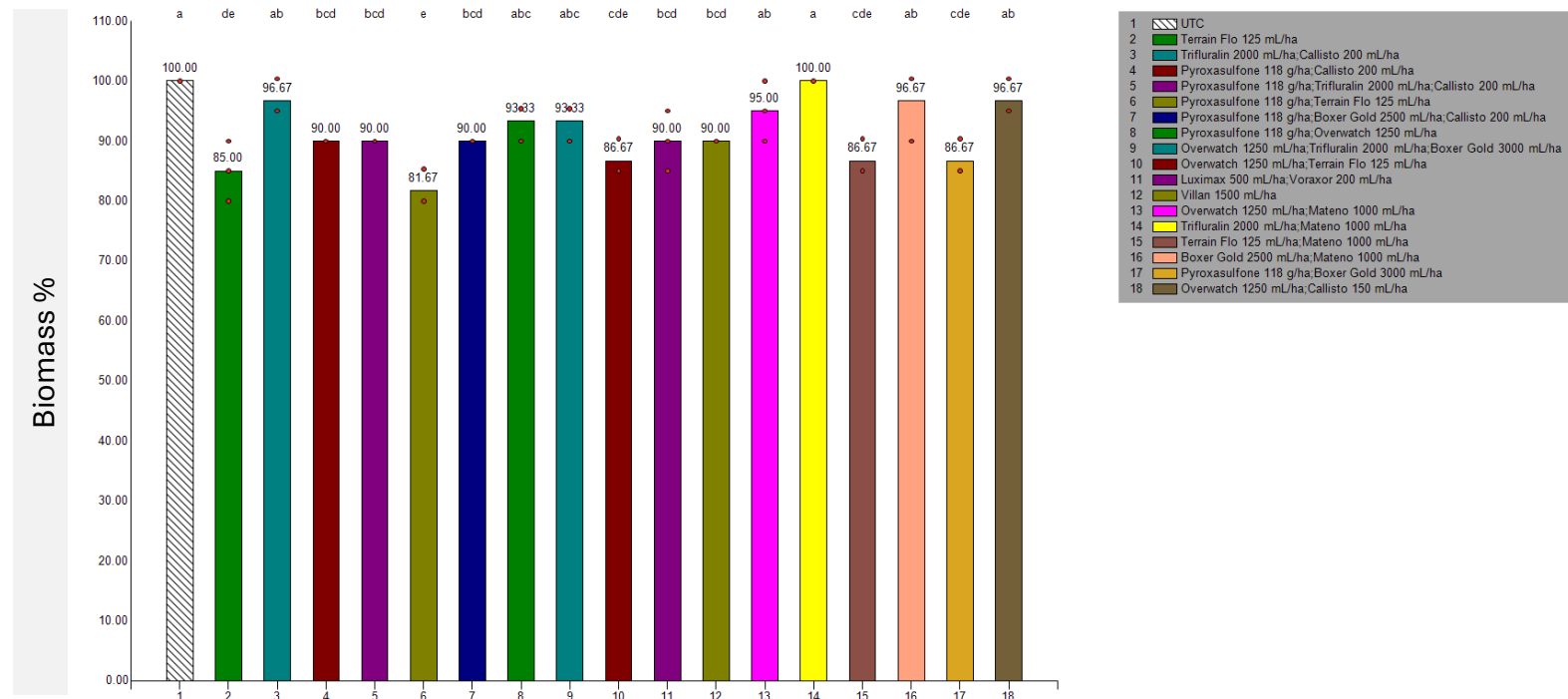
Assessment 1: Pre-Spray – 11th June 2024

Vigour reduction



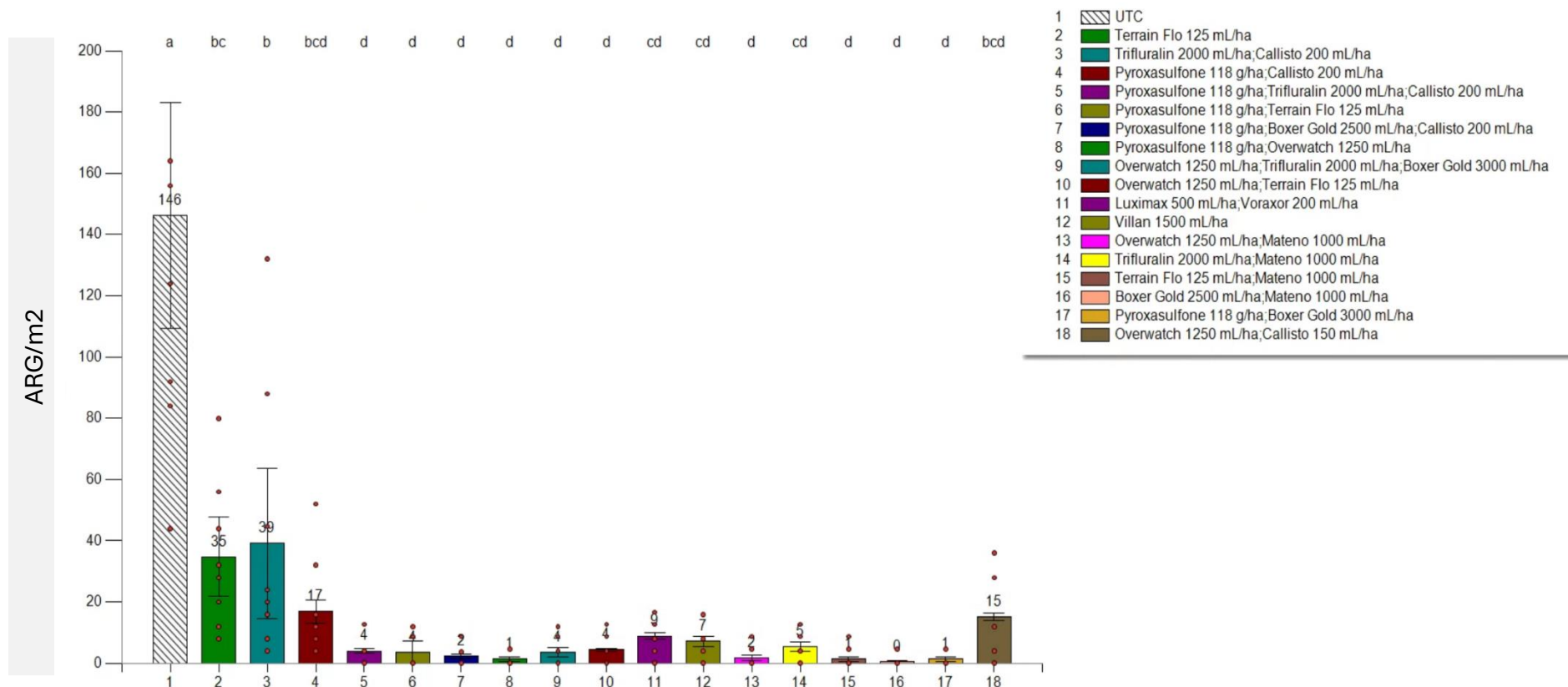
Assessment 1: Pre-Spray – 11th June 2024

Biomass



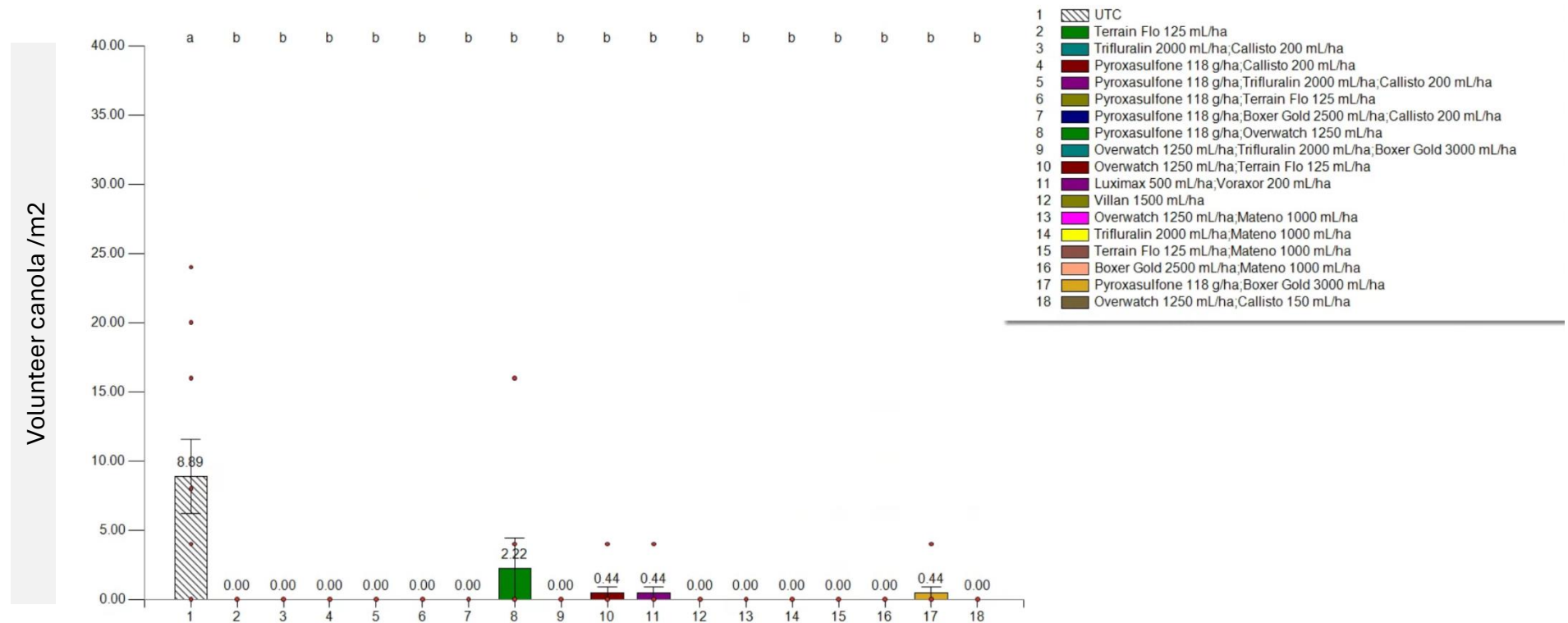
Assessment 2: 14 DA-B - 26th June 2024

ARG counts per m²



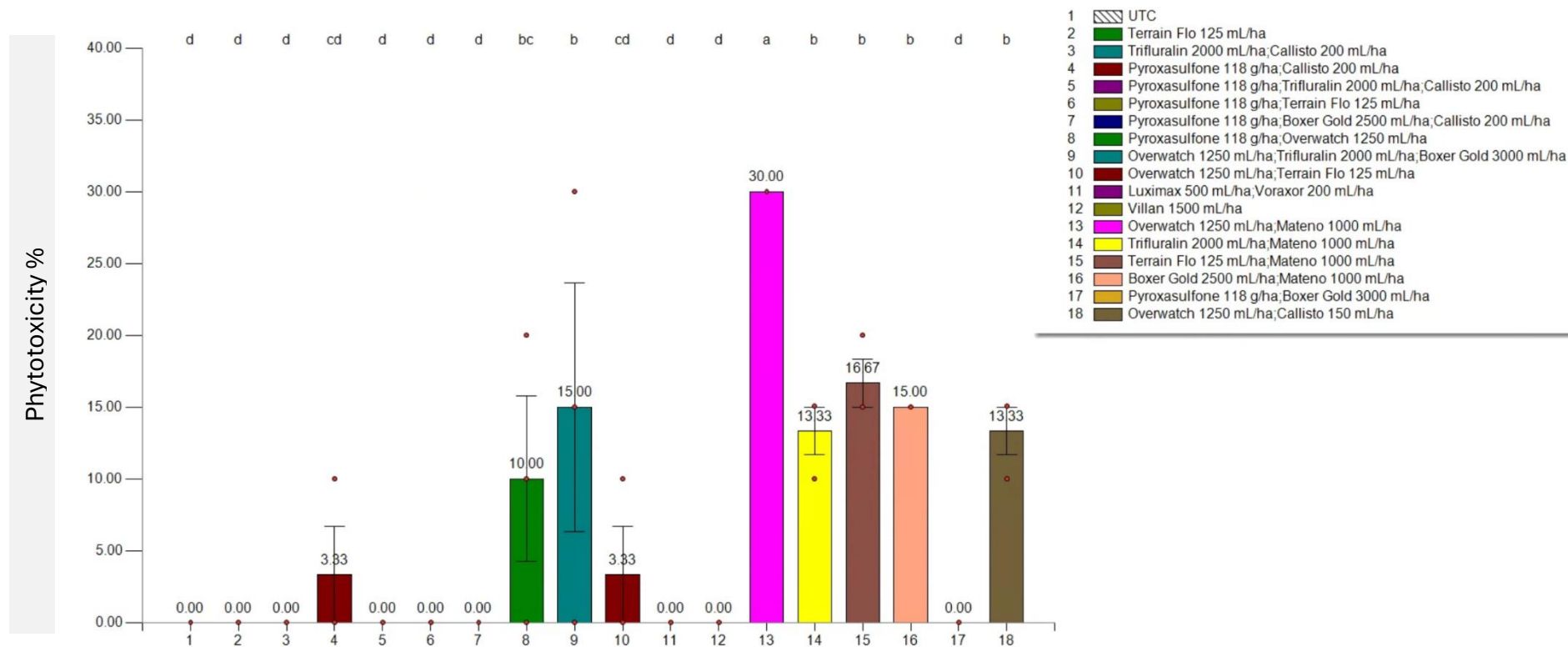
Assessment 2: 14 DA-B - 26th June 2024

Volunteer Canola counts per m2



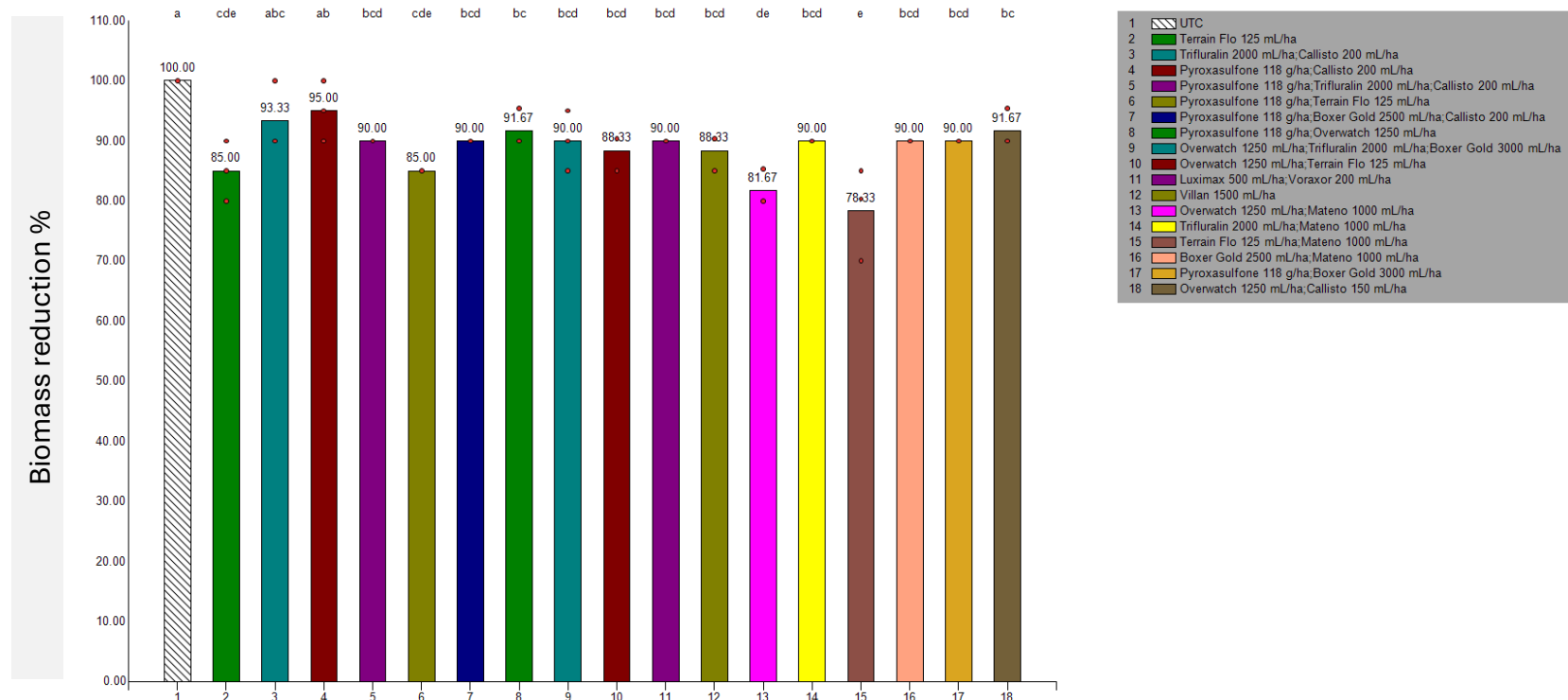
Assessment 2: 14 DA-B - 26th June 2024

Crop Safety – Phytotoxicity



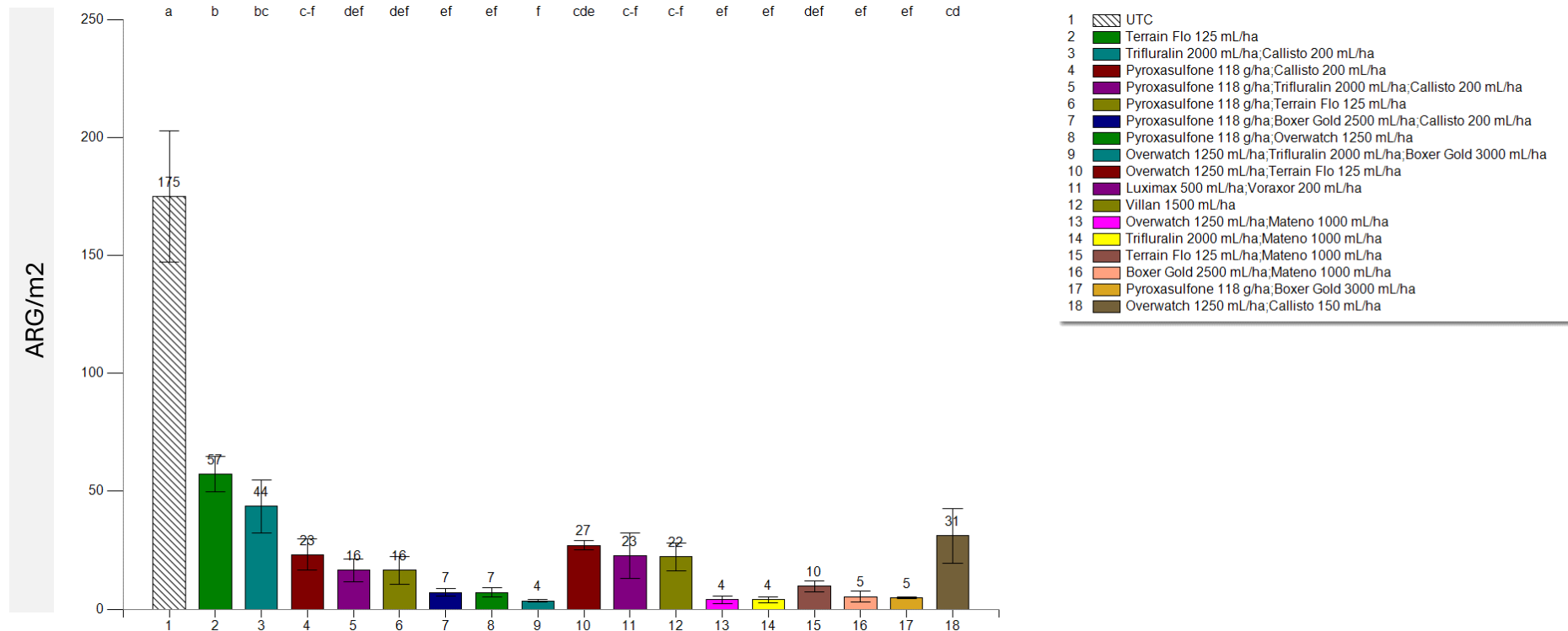
Assessment 2: 14 DA-B - 26th June 2024

Crop Safety – Biomass reduction



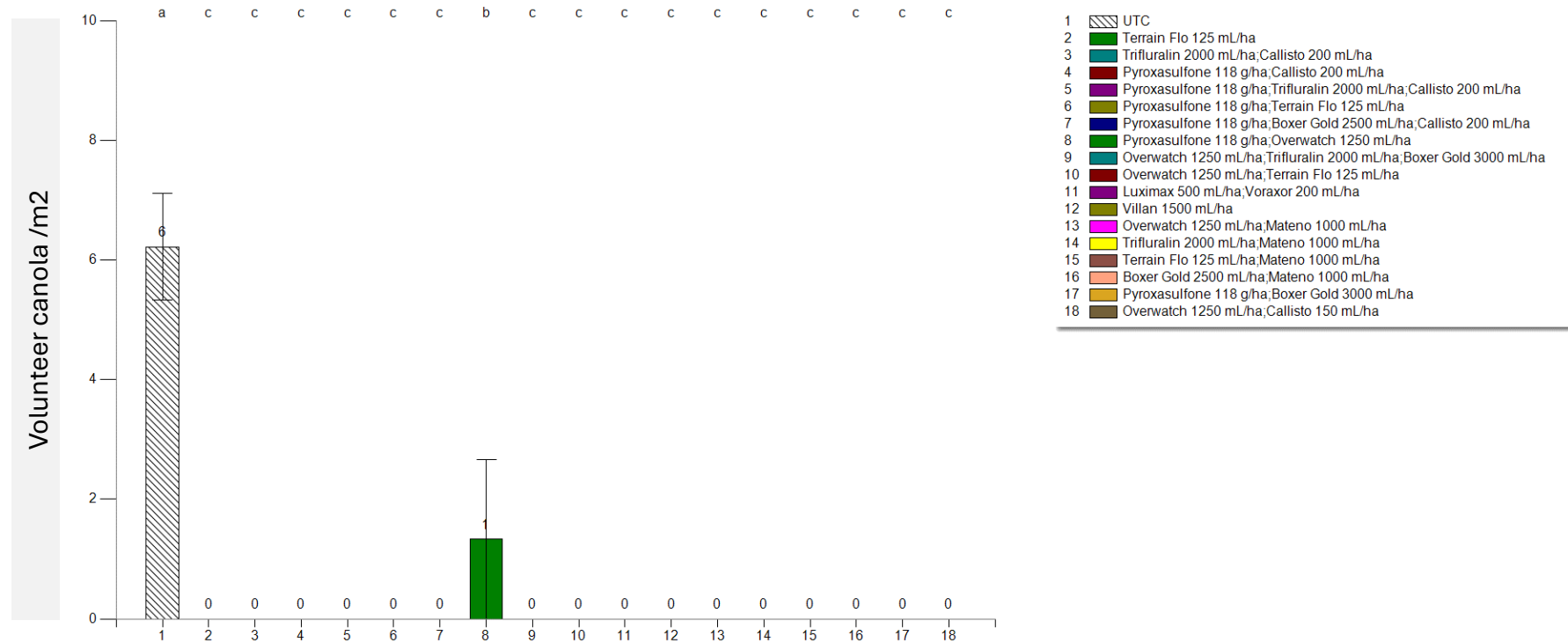
Assessment 3: 42 DA-B – 23rd July 2024

ARG counts per m2



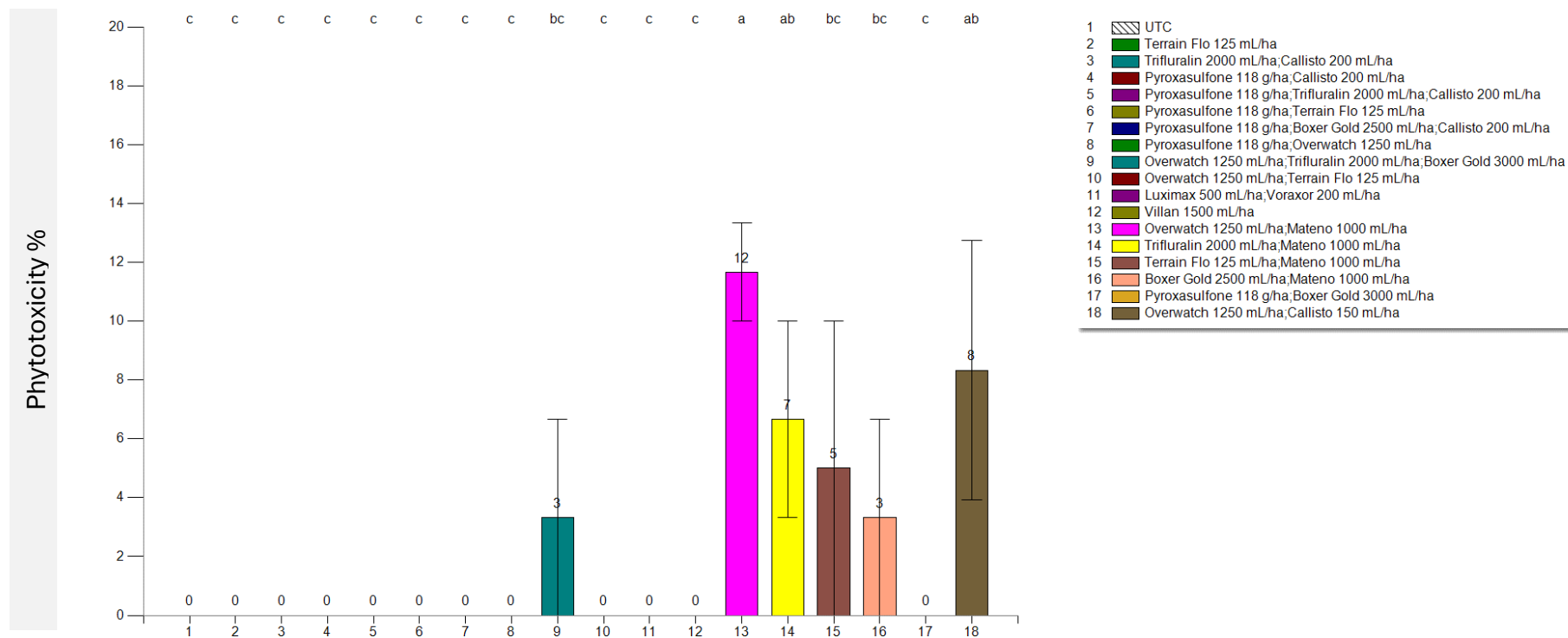
Assessment 3: 42 DA-B - 23rd July 2024

Volunteer Canola counts per m2



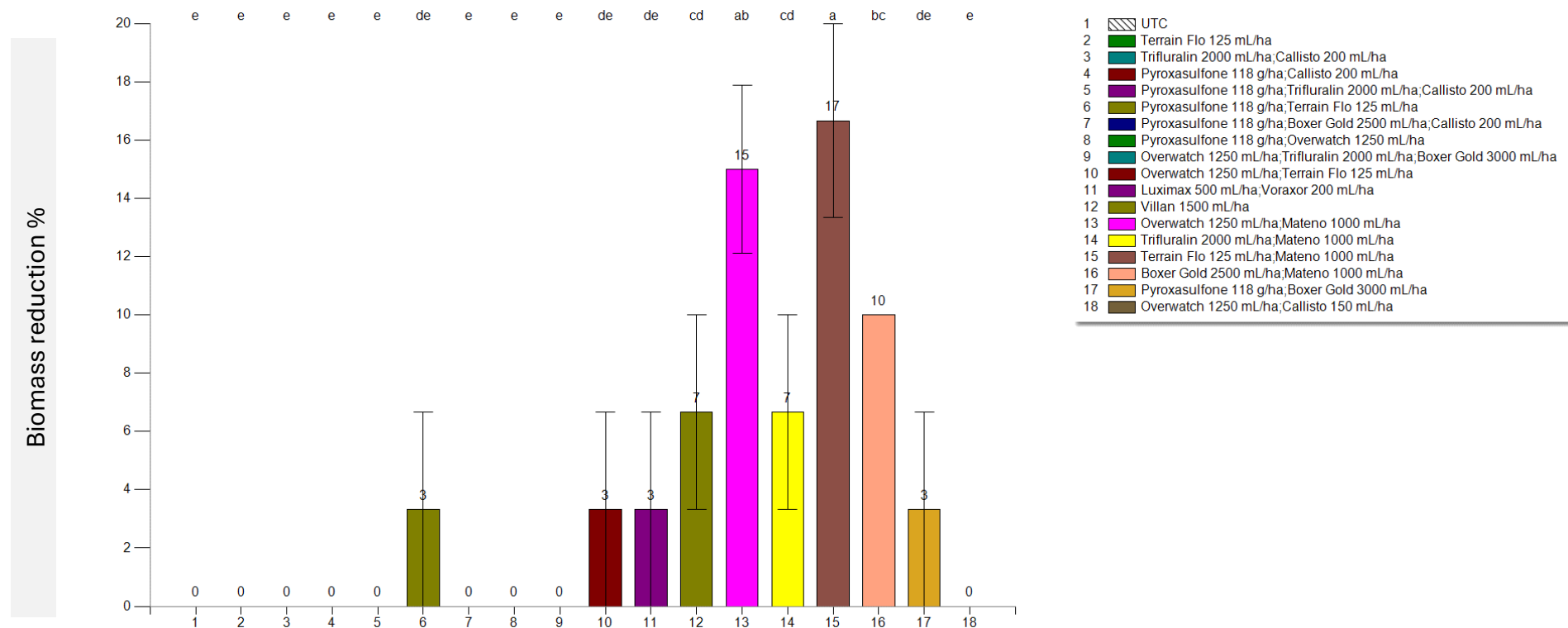
Assessment 3: 42 DA-B - 23rd July 2024

Crop Safety – Phytotoxicity



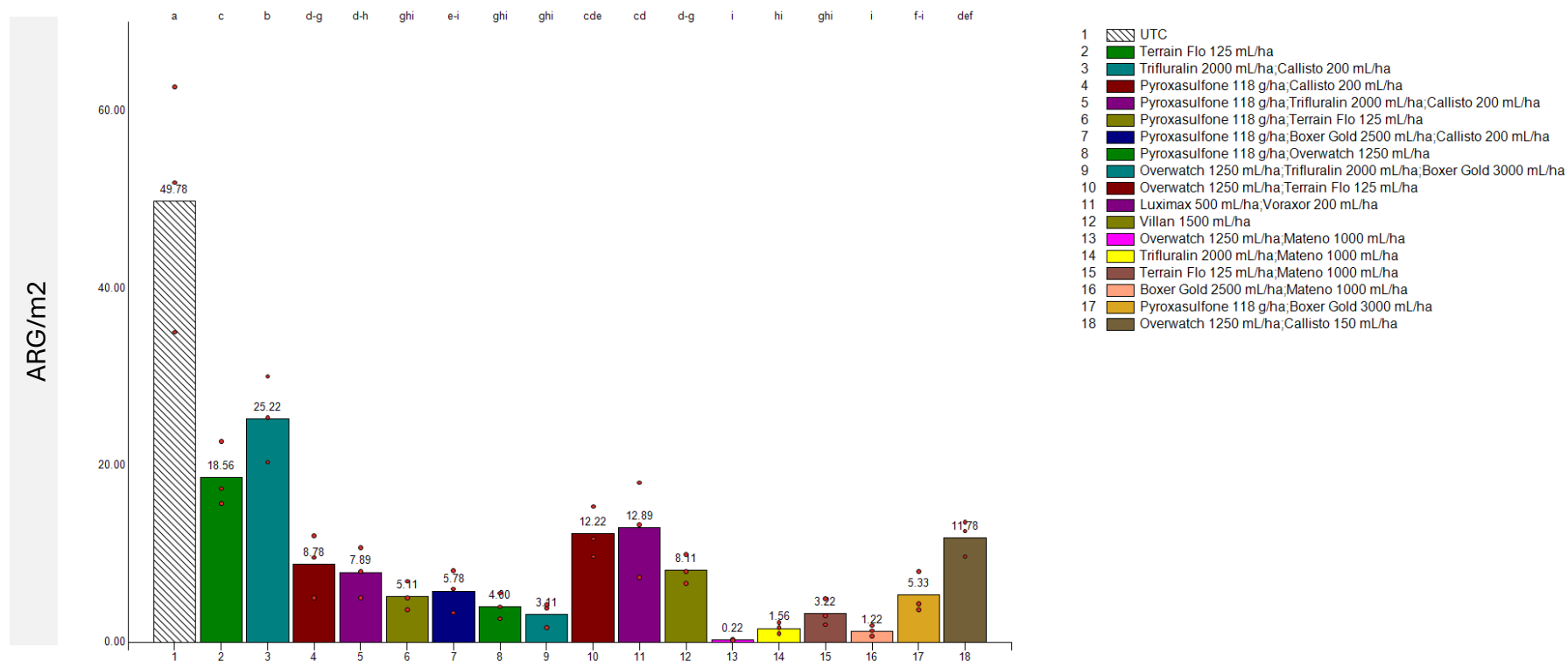
Assessment 3: 42 DA-B – 23rd 2024

Crop Safety – Biomass reduction



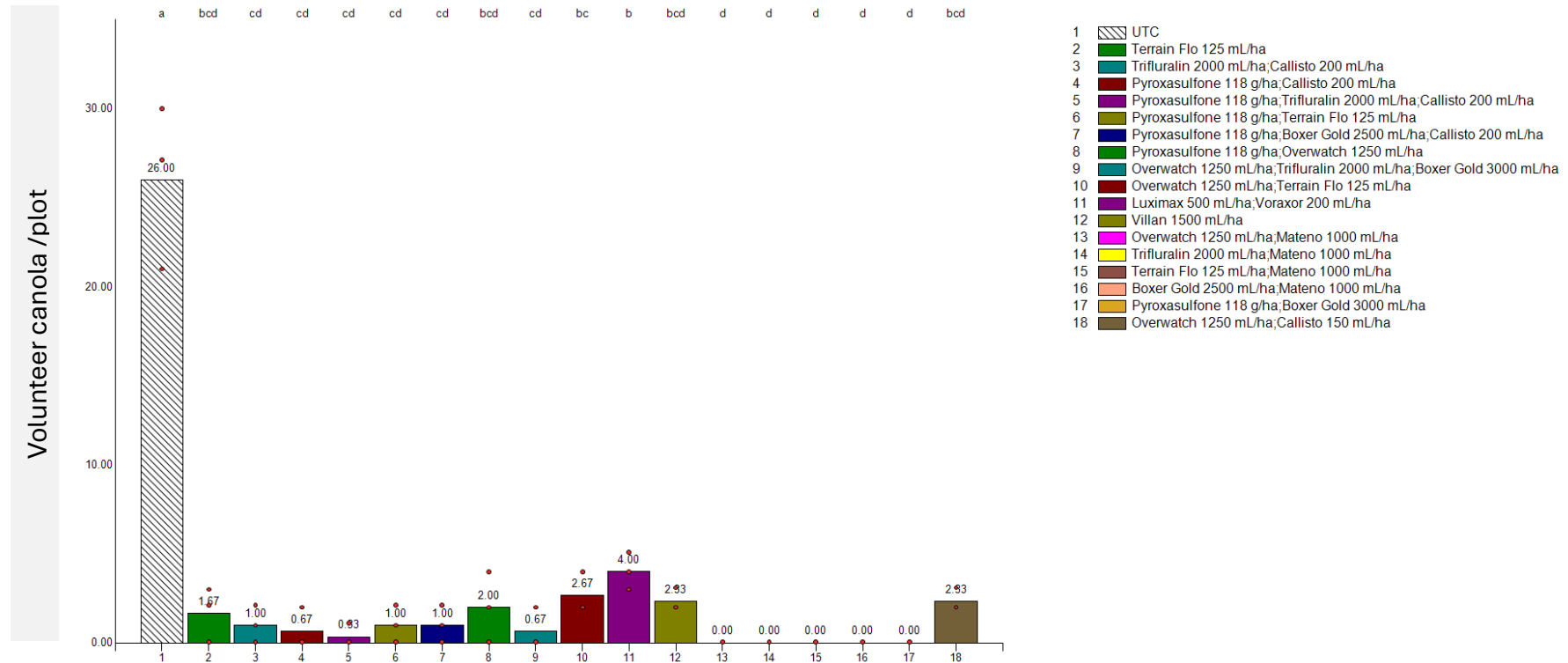
Assessment 4: 84 DA-B – 3rd September 2024

ARG counts per m2



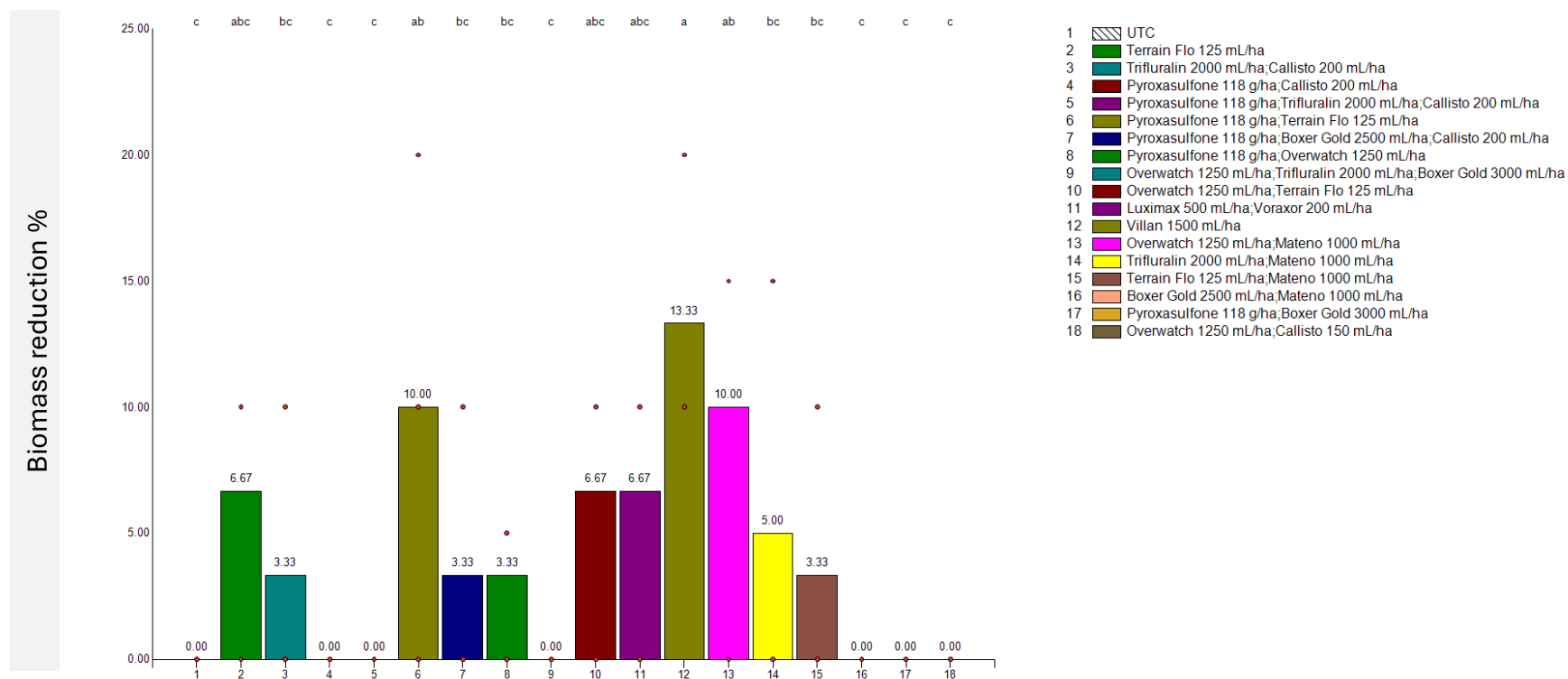
Assessment 4: 84 DA-B – 3rd September 2024

Volunteer Canola counts per plot

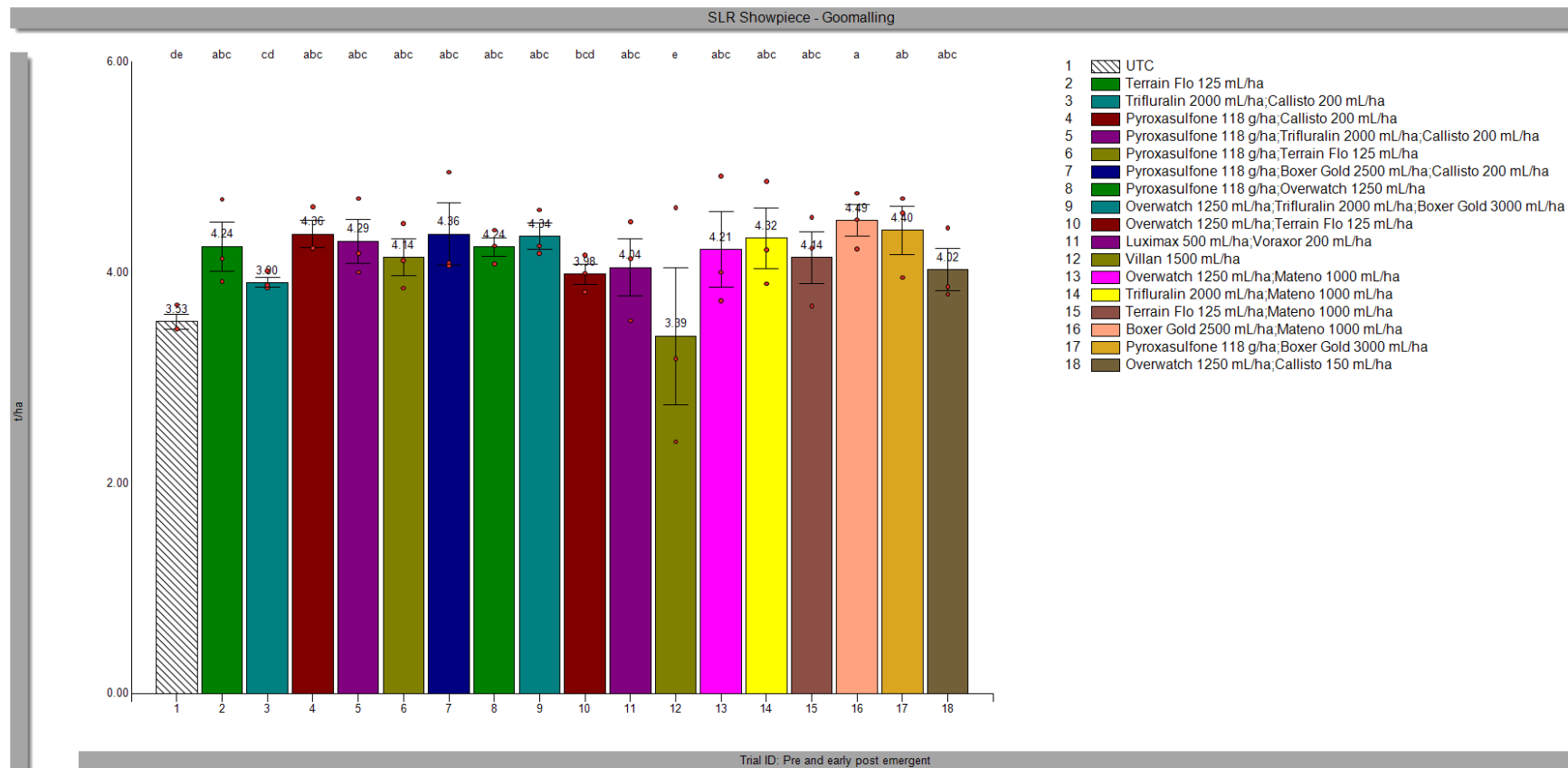


Assessment 4: 84 DA-B – 3rd September 2024

Crop Safety – Biomass reduction



Yield Data (t/ha)



ANVOA Means Table – Assessment 1, 11th June 2024, 25 DA-A

Rating Date SE Description Rating Type Rating Unit Number of Subsamples Rating Timing Treatment Appl. Interval					11/06/2024 ARG per m2 COU/m2 3 A1 25 DA-A	11/06/2024 Canola per m2 COU/m2 3 A1 25 DA-A	11/06/2024 Phytotoxicity PHYGEN % 1 A1 25 DA-A	11/06/2024 Vigour reduction VIGRED % 1 A1 25 DA-A	11/06/2024 Biomass Reduction BIOMRE % 1 A1 25 DA-A
Trt No.	Treatment Name	Rate	Rate Unit	Appl code					
1	UTC				120.9 a	17.3 a	0 c	0 d	0 f
2	Terrain Flow	125	ml/ha	A	40 b	1.3 e	0 c	3.33 cd	15 ab
3	Trifluralin	2000	ml/ha	A	24.4 bc	5.8 b-e	0 c	0 d	3.33 ef
	Callisto	200	ml/ha	A					
4	Pyroxasulfone	118	g/ha	A	11.1 bc	1.3 e	0 c	0 d	10 cd
	Callisto	200	ml/ha	A					
5	Pyroxasulfone	118	g/ha	A	5.8 c	1.8 de	3.33 bc	0 d	10 cd
	Trifluralin	2000	ml/ha	A					
	Callisto	200	ml/ha	A					
6	Pyroxasulfone	118	g/ha	A	3.1 c	0 e	10 a	13.33 a	18.33 a
	Terrain Flow	125	ml/ha	A					
7	Pyroxasulfone	118	g/ha	A	4.9 c	0.4 e	0 c	10 abc	10 cd
	Boxer Gold	2500	ml/ha	A					
	Callisto	200	ml/ha	A					
8	Pyroxasulfone	118	g/ha	A	3.6 c	1.8 de	11.67 a	6.67 a-d	6.67 de
	Overwatch	1250	ml/ha	A					
9	Overwatch	1250	ml/ha	A	10.2 bc	7.6 bcd	11.67 a	5 bcd	6.67 de
	Trifluralin	2000	ml/ha	A					
	Boxer Gold	3000	ml/ha	B					
10	Overwatch	1250	ml/ha	A	15.1 bc	0 e	8.33 ab	11.67 ab	13.33 bc
	Terrain Flow	125	ml/ha	A					
11	Luximax	500	ml/ha	A	12.4 bc	0.9 e	0 c	8.33 abc	10 cd
	Voraxor	200	ml/ha	A					
12	Villan	1500	ml/ha	A	9.8 bc	0.4 e	3.33 bc	6.67 a-d	10 cd
13	Overwatch	1250	ml/ha	A	26.7 bc	8.4 bc	11.67 a	3.33 cd	5 e
	Mateno Complete	1000	ml/ha	B					
14	Trifluralin	2000	ml/ha	A	20.4 bc	9.3 b	0 c	0 d	0 f
	Mateno Complete	1000	ml/ha	B					
15	Terrain Flow	125	ml/ha	A	28 bc	1.3 e	3.33 bc	3.33 cd	13.33 bc
	Mateno Complete	1000	ml/ha	B					
16	Boxer Gold	2500	ml/ha	A	10.7 bc	2.2 de	3.33 bc	0 d	3.33 ef
	Mateno Complete	1000	ml/ha	B					
17	Pyroxasulfone	118	g/ha	A	3.6 c	2.7 cde	0 c	3.33 cd	13.33 bc
	Boxer Gold	3000	ml/ha	A					
18	Overwatch	1250	ml/ha	A	8.9 bc	3.6 b-e	11.67 a	6.67 a-d	3.33 ef
	Callisto	150	ml/ha	A					
LSD P= .05					31.59	5.98	5.442	6.9	4.59
Standard Deviation					19.04	3.61	3.28	4.158	2.766
CV					95.31	98.03	75.37	91.66	32.83
Replicate F					3.247	6.693	3.916	5.167	5.868
Replicate Prob(F)					0.0512	0.0035	0.0295	0.011	0.0065
Treatment F					6.103	4.657	6.848	3.22	10.694
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0018	0.0001

ANVOA Means Table – Assessment 2, 26th June 2024, 15 DA-B

Rating Date SE Description Rating Type Rating Unit Number of Subsamples Rating Timing Treatment Appl. Interval					26/06/2024 ARG per m2 COU/m2 3 A2 15 DA-B	26/06/2024 Canola per m2 COU/m2 3 A2 15 DA-B	26/06/2024 Phytotoxicity PHYGEN % 1 A2 15 DA-B	26/06/2024 Biomass Reduction BIOMRE % 1 A2 15 DA-B
Trt No.	Treatment Name	Rate	Rate Unit	Appl code				
1	UTC				146 a	8.89 a	0 d	0 d
2	Terrain Flow	125	ml/ha	A	35 bc	0 b	0 d	11.67 bc
3	Trifluralin	2000	ml/ha	A	39 b	0 b	0 d	6.67 c
	Callisto	200	ml/ha	A				
4	Pyroxasulfone	118	g/ha	A	17 bcd	0 b	3.33 cd	6.67 c
	Callisto	200	ml/ha	A				
5	Pyroxasulfone	118	g/ha	A	4 d	0 b	0 d	10 bc
	Trifluralin	2000	ml/ha	A				
	Callisto	200	ml/ha	A				
6	Pyroxasulfone	118	g/ha	A	4 d	0 b	0 d	13.33 b
	Terrain Flow	125	ml/ha	A				
7	Pyroxasulfone	118	g/ha	A	2 d	0 b	0 d	11.67 bc
	Boxer Gold	2500	ml/ha	A				
	Callisto	200	ml/ha	A				
8	Pyroxasulfone	118	g/ha	A	1 d	2.22 b	10 bc	10 bc
	Overwatch	1250	ml/ha	A				
9	Overwatch	1250	ml/ha	A	4 d	0 b	15 b	11.67 bc
	Trifluralin	2000	ml/ha	A				
	Boxer Gold	3000	ml/ha	B				
10	Overwatch	1250	ml/ha	A	4 d	0.44 b	3.33 cd	11.67 bc
	Terrain Flow	125	ml/ha	A				
11	Luximax	500	ml/ha	A	9 cd	0.44 b	0 d	10 bc
	Voraxor	200	ml/ha	A				
12	Villan	1500	ml/ha	A	7 cd	0 b	0 d	11.67 bc
13	Overwatch	1250	ml/ha	A	2 d	0 b	30 a	21.67 a
	Mateno Complete	1000	ml/ha	B				
14	Trifluralin	2000	ml/ha	A	5 cd	0 b	13.33 b	10 bc
	Mateno Complete	1000	ml/ha	B				
15	Terrain Flow	125	ml/ha	A	1 d	0 b	16.67 b	21.67 a
	Mateno Complete Complete	1000	ml/ha	B				
16	Boxer Gold	2500	ml/ha	A	0 d	0 b	15 b	10 bc
	Mateno Complete Complete	1000	ml/ha	B				
17	Pyroxasulfone	118	g/ha	A	1 d	0.44 b	0 d	10 bc
	Boxer Gold	3000	ml/ha	A				
18	Overwatch	1250	ml/ha	A	15 bcd	0 b	13.33 b	10 bc
	Callisto	150	ml/ha	A				
LSD P=.05					30.1	2.415	7.779	6.068
Standard Deviation					18.1	1.456	4.688	3.657
CV					109.77	210.53	70.32	33.19
Replicate F					2.921	1.181	1.959	0.45
Replicate Prob(F)					0.0675	0.3193	0.1566	0.6413
Treatment F					10.707	6.325	10.483	5.289
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001

ANVOA Means Table – Assessment 3, 23rd July 2024, 42 DA-B

Rating Date SE Description Rating Type Rating Unit Number of Subsamples Rating Timing Treatment Appl. Interval					23/07/2024 ARG per m2 COU/m2	23/07/2024 ARG % control %	23/07/2024 Canola per m2	23/07/2024 Phytotoxicity PHYGEN %	23/07/2024 Biomass Reduction BIOMRE %
					3	1	3	1	1
					A3	A3	A3	A3	A3
					42 DA-B	42 DA-B	42 DA-B	42 DA-B	42 DA-B
Trt No.	Treatment Name	Rate	Rate Unit	Appl code					
1	UTC				175.11 a	0 g	6.22 a	0 c	0 e
2	Terrain Flow	125	ml/ha	A	57.33 b	86.67 ef	0 c	0 c	0 e
3	Trifluralin	2000	ml/ha	A	43.56 bc	85 f	0 c	0 c	0 e
	Callisto	200	ml/ha	A					
4	Pyroxasulfone	118	g/ha	A	23.11 c-f	90 de	0 c	0 c	0 e
	Callisto	200	ml/ha	A					
5	Pyroxasulfone	118	g/ha	A	16.44 def	96 abc	0 c	0 c	0 e
	Trifluralin	2000	ml/ha	A					
	Callisto	200	ml/ha	A					
6	Pyroxasulfone	118	g/ha	A	16.44 def	91.67 d	0 c	0 c	3.33 de
	Terrain Flow	125	ml/ha	A					
7	Pyroxasulfone	118	g/ha	A	7.11 ef	97 ab	0 c	0 c	0 e
	Boxer Gold	2500	ml/ha	A					
	Callisto	200	ml/ha	A					
8	Pyroxasulfone	118	g/ha	A	7.11 ef	98 a	1.33 b	0 c	0 e
	Overwatch	1250	ml/ha	A					
9	Overwatch	1250	ml/ha	A	3.56 f	99.33 a	0 c	3.33 bc	0 e
	Trifluralin	2000	ml/ha	A					
	Boxer Gold	3000	ml/ha	B					
10	Overwatch	1250	ml/ha	A	27.11 cde	90 de	0 c	0 c	3.33 de
	Terrain Flow	125	ml/ha	A					
11	Luximax	500	ml/ha	A	22.67 c-f	92.67 cd	0 c	0 c	3.33 de
	Voraxor	200	ml/ha	A					
12	Villan	1500	ml/ha	A	22.22 c-f	93.33 bcd	0 c	0 c	6.67 cd
13	Overwatch	1250	ml/ha	A	4 ef	97.67 a	0 c	11.67 a	15 ab
	Mateno Complete	1000	ml/ha	B					
14	Trifluralin	2000	ml/ha	A	4 ef	99 a	0 c	6.67 ab	6.67 cd
	Mateno Complete	1000	ml/ha	B					
15	Terrain Flow	125	ml/ha	A	9.78 def	97 ab	0 c	5 bc	16.67 a
	Mateno Complete	1000	ml/ha	B					
16	Boxer Gold	2500	ml/ha	A	5.33 ef	97.67 a	0 c	3.33 bc	10 bc
	Mateno Complete	1000	ml/ha	B					
17	Pyroxasulfone	118	g/ha	A	4.89 ef	98.33 a	0 c	0 c	3.33 de
	Boxer Gold	3000	ml/ha	A					
18	Overwatch	1250	ml/ha	A	31.11 cd	90.67 de	0 c	8.33 ab	0 e
	Callisto	150	ml/ha	A					
LSD P=.05					23.313	4.003	1.1	5.936	6.178
Standard Deviation					14.05	2.413	0.663	3.578	3.723
CV					52.59	2.71	157.96	167.99	98.07
Replicate F					3.455	1.04	0.524	1.881	1.637
Replicate Prob(F)					0.043	0.3643	0.5967	0.168	0.2096
Treatment F					24.209	263.434	14.982	2.972	6.069
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0033	0.0001

ANVOA Means Table – Assessment 4, 3rd September 2024, 84 DA-B

Rating Date SE Description Rating Type Rating Unit Number of Subsamples Rating Timing Treatment Appl. Interval					3/09/2024 ARG count COU/m2 3	3/09/2024 ARG Control % %	3/09/2024 Canola Count COU/plot 1	3/09/2024 Phytotoxicity PHYGEN %	3/09/2024 Biomass Reduction BIOMRE %
					A4 84 DA-B	A4 84 DA-B	A4 84 DA-B	A4 84 DA-B	A4 84 DA-B
Trt No.	Treatment Name	Rate	Rate Unit	Appl code					
1	UTC				49.78 a	0 h	26 a	0 na	0 c
2	Terrain Flow	125	ml/ha	A	18.56 c	73.33 g	1.67 bcd	0 na	6.67 abc
3	Trifluralin	2000	ml/ha	A	25.22 b	81.67 f	1 cd	0 na	3.33 bc
	Callisto	200	ml/ha	A					
4	Pyroxasulfone	118	g/ha	A	8.78 d-g	86.67 def	0.67 cd	0 na	0 c
	Callisto	200	ml/ha	A					
5	Pyroxasulfone	118	g/ha	A	7.89 d-h	89 cde	0.33 cd	0 na	0 c
	Trifluralin	2000	ml/ha	A					
	Callisto	200	ml/ha	A					
6	Pyroxasulfone	118	g/ha	A	5.11 ghi	93.33 bc	1 cd	0 na	10 ab
	Terrain Flow	125	ml/ha	A					
7	Pyroxasulfone	118	g/ha	A	5.78 e-i	92.33 bcd	1 cd	0 na	3.33 bc
	Boxer Gold	2500	ml/ha	A					
	Callisto	200	ml/ha	A					
8	Pyroxasulfone	118	g/ha	A	4 ghi	96 ab	2 bcd	0 na	3.33 bc
	Overwatch	1250	ml/ha	A					
9	Overwatch	1250	ml/ha	A	3.11 ghi	96.67 ab	0.67 cd	0 na	0 c
	Trifluralin	2000	ml/ha	A					
	Boxer Gold	3000	ml/ha	B					
10	Overwatch	1250	ml/ha	A	12.22 cde	88.33 cde	2.67 bc	0 na	6.67 abc
	Terrain Flow	125	ml/ha	A					
11	Luximax	500	ml/ha	A	12.89 cd	86.67 def	4 b	0 na	6.67 abc
	Voraxor	200	ml/ha	A					
12	Villan	1500	ml/ha	A	8.11 d-g	86.67 def	2.33 bcd	0 na	13.33 a
13	Overwatch	1250	ml/ha	A	0.22 i	100 a	0 d	0 na	10 ab
	Mateno Complete	1000	ml/ha	B					
14	Trifluralin	2000	ml/ha	A	1.56 hi	98.67 ab	0 d	0 na	5 bc
	Mateno Complete	1000	ml/ha	B					
15	Terrain Flow	125	ml/ha	A	3.22 ghi	96.33 ab	0 d	0 na	3.33 bc
	Mateno Complete	1000	ml/ha	B					
16	Boxer Gold	2500	ml/ha	A	1.22 i	98.67 ab	0 d	0 na	0 c
	Mateno Complete	1000	ml/ha	B					
17	Pyroxasulfone	118	g/ha	A	5.33 f-i	94 abc	0 d	0 na	0 c
	Boxer Gold	3000	ml/ha	A					
18	Overwatch	1250	ml/ha	A	11.78 def	85 ef	2.33 bcd	0 na	0 c
	Callisto	150	ml/ha	A					
LSD P=.05					6.546	6.515	2.407	.	8.319
Standard Deviation					3.945	3.926	1.449	0	5.014
CV					38.43	4.58	57.12	0	125.92
Replicate F					3.107	7.388	0.803	NaN	2.56
Replicate Prob(F)					0.0576	0.0022	0.4568	NaN	0.0921
Treatment F					26.633	98.28	50.836	NaN	2.073
Treatment Prob(F)					0.0001	0.0001	0.0001	NaN	0.0346

ANVOA Means Table – Harvest (t/ha), 11th November 2024, 153 DA-B

Rating Date SE Description Number of Subsamples Days After First/Last Applic.						11/11/2024 t/ha	1
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code			
1	UTC					3.53	de
2	Terrain Flow	125	ml/ha	A		4.24	abc
3	Trifluralin	2000	ml/ha	A		3.9	cd
	Callisto	200	ml/ha	A			
4	Pyroxasulfone	118	g/ha	A		4.36	abc
	Callisto	200	ml/ha	A			
5	Pyroxasulfone	118	g/ha	A		4.29	abc
	Trifluralin	2000	ml/ha	A			
	Callisto	200	ml/ha	A			
6	Pyroxasulfone	118	g/ha	A		4.14	abc
	Terrain Flow	125	ml/ha	A			
7	Pyroxasulfone	118	g/ha	A		4.36	abc
	Boxer Gold	2500	ml/ha	A			
	Callisto	200	ml/ha	A			
8	Pyroxasulfone	118	g/ha	A		4.24	abc
	Overwatch	1250	ml/ha	A			
9	Overwatch	1250	ml/ha	A		4.34	abc
	Trifluralin	2000	ml/ha	A			
	Boxer Gold	3000	ml/ha	B			
10	Overwatch	1250	ml/ha	A		3.98	bcd
	Terrain Flow	125	ml/ha	A			
11	Luximax	500	ml/ha	A		4.04	abc
	Voraxor	200	ml/ha	A			
12	Villan	1500	ml/ha	A		3.39	e
13	Overwatch	1250	ml/ha	A		4.21	abc
	Mateno Complete	1000	ml/ha	B			
14	Trifluralin	2000	ml/ha	A		4.32	abc
	Mateno Complete	1000	ml/ha	B			
15	Terrain Flow	125	ml/ha	A		4.14	abc
	Mateno Complete	1000	ml/ha	B			
16	Boxer Gold	2500	ml/ha	A		4.49	a
	Mateno Complete	1000	ml/ha	B			
17	Pyroxasulfone	118	g/ha	A		4.4	ab
	Boxer Gold	3000	ml/ha	A			
18	Overwatch	1250	ml/ha	A		4.02	abc
	Callisto	150	ml/ha	A			
LSD P= .05							0.484
Standard Deviation							0.292
CV							7.06
Grand Mean							4.133
Replicate F							23.651
Replicate Prob(F)							0.0001
Treatment F							2.988
Treatment Prob(F)							0.0032

Treatment application details

Treatment application	A	B
Application Timing	IBS	EPE
Crop Stage	-	Z12 – 2 leaves emerged
Weed Stage	-	1 leaf
Date	17 th May 2024	11 th June 2024
Time	10am to 11:30am	12:30pm to 1:20pm
Cloud cover (%)	0	75%
Temperature (°C)	21.4	15.1
Relative Humidity (%)	39.2	83.7
Delta T (°C)	6.8	1.4
Wind Speed Km/hr	16	8
Wind Direction	ENE	NE
Soil moisture	Moisture at 20mm from top of furrow	Full moisture profile
Dew point (°C)	8.2	12.5

Application equipment	A	B
Application equipment	Brolga 2m Hand boom	Brolga 2m Hand boom
Nozzles	110 – 015 Agrotop - Flat fan air induction	110-010 Agrotop- Flat fan air induction
Number of nozzles	4	4
Nozzle spacing	50cm	50cm
Boom height	50cm above canopy	50cm above canopy
Water volume	80 L/ha	80 L/ha
Spraying pressure	220 kPa	220 kPa
Mix size	2 L	2 L
Spray Quality	Coarse	Coarse
Propellant	CO ₂	CO ₂



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