

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.

Glyphosate Resistant Awnless Barnyard Grass Management

Trial ID: RH1119

Location: Moree
Investigator: Rachel Herron

Trial Year: 2011

Objective:	To evaluate alternative options for glyphosate resistant Awnless barnyard grass control in fallow		
Situation:	Fallow		
Application:	T1	T2	T3
Application Date:	9/11/2011	14/11/2011	22/11/2011
Interval:	-	5 DAT1	13 DAT1
Nozzles:	AIXR110015		
Volume:	70 L/ha	100 L/ha	100 L/ha *
Weed Density:	5-10 plants/m ²		
Weed Stage:	5-10cm Tall	Tillering	Elongating

*Second applications of Treatments 12 and 13 were applied at T3 in 70 L/ha volume

Table 1: First Knock Only

Trt No.	Treatment	Rate mL or g/ha	Awnless Barnyard Grass (<i>Echinochloa colona</i>) 30/12/2011 51 DAT1	
			Surviving/m ²	% Control (Counts)
1	Untreated	-	26.06 a	-
2	Glyphosate CT	800	7.96 b	69
3	Glyphosate CT	1600	0.70 de	97
4	Gp A V	300	0.13 e	100
5	Gp A S	375	0.06 e	100
6	Gp A V + Gp A S	150 + 250	0.00 e	100
7	Gp B H	100	5.20 bc	80
8	Basta	3750	0.23 e	99
9	Gp A V + Glyphosate CT	300 + 800	0.20 e	99
10	Gp A S + Glyphosate CT	375 + 800	0.26 e	99
11	Gp B H + Glyphosate CT	100 + 800	0.60 e	98
12	Glyphosate CT fb Gp A V	800 fb 300	0.13 e	99
13	Gp A V fb Glyphosate CT	300 fb 800	0.03 e	100

DAT1 = Days after Treatment 1

Treatments 12 and 13 were sequential applications with the second herbicide applied at T3

fb = Followed by

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Table 2: Double Knocked with Nuquat 2L/ha at 5 DAT1 in 100 L/ha volume

Trt No.	Treatment	Rate mL or g/ha	Awnless Barnyard Grass (<i>Echinochloa colona</i>) 30/12/2011 46 DAT2	
			Surviving/m ²	% Control (Counts)
1a	2nd Knock only	-	2.75 cd	89
2a	Glyphosate CT	800	0.00 e	100
3a	Glyphosate CT	1600	0.00 e	100
4a	Gp A V	300	0.00 e	100
5a	Gp A S	375	0.00 e	100
6a	Gp A V + Gp A S	150 + 250	0.03 e	100
7a	Gp B H	100	0.03 e	100
8a	Basta	3750	0.00 e	100
9a	Gp A V + Glyphosate CT	300 + 800	0.00 e	100
10a	Gp A S + Glyphosate CT	375 + 800	0.00 e	100
11a	Gp B H + Glyphosate CT	100 + 800	0.00 e	100
12a	Glyphosate CT fb Gp A V	800 fb 300	0.00 e	100
13a	Gp A V fb Glyphosate CT	300 fb 800	0.00 e	100

Treatment 12 and 13 were sequential applications with the second herbicide applied at T3 in 70L/ha volume

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Table 3: Double Knocked with Nuquat 2L/ha at 13 DAT1 in 100 L/ha volume

Trt No.	Treatment	Rate mL or g/ha	Awnless Barnyard Grass (<i>Echinochloa colona</i>) 30/12/2011 38 DAT3	
			Surviving/m ²	% Control (Counts)
1b	2nd Knock only	-	2.77 cd	89
2b	Glyphosate CT	800	0.00 e	100
3b	Glyphosate CT	1600	0.00 e	100
4b	Gp A V	300	0.00 e	100
5b	Gp A S	375	0.00 e	100
6b	Gp A V + Gp A S	150 + 250	0.00 e	100
7b	Gp B H	100	0.23 e	99
8b	Basta	3750	0.00 e	100
9b	Gp A V + Glyphosate CT	300 + 800	0.15 e	99
10b	Gp A S + Glyphosate CT	375 + 800	0.06 e	100
11b	Gp B H + Glyphosate CT	100 + 800	0.54 e	98
12b	Glyphosate CT fb Gp A V	800 fb 300	0.09 e	100
13b	Gp A V fb Glyphosate CT	300 fb 800	0.00 e	100
		P = LSD =	<0.01 Sqrt (x+0.5) transformation	Not analysed

Treatment 12 and 13 were sequential applications with the second herbicide applied at T3 in 70L/ha volume

NB At initial spraying the weeds were very small but also very stressed.

Moree received heavy rain during the week following the T3 application. The trial site flooded, remaining under water for about two weeks.

Resistance testing confirmed glyphosate resistance