

Quali-Pro Quinclorac Comparison
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 Cooperator: Quali-Pro

Site and Design		
Plot Width, Unit:	5	FT
Plot Length, Unit:	5	FT
Plot Area, Unit:	25	FT ²
Replications:	3	
Study Design:		
Randomized Complete Block (RCB)		
Application Description		
	A	B
Application Date:	7/1/2013	7/12/2013
Time of Day:	9 am	10 am
Application Method:	Spray	Spray
Application Timing:	post	post
Application Placement:	broad	broad
Air Temperature, Unit:	72 f	81 F
% Relative Humidity:	62	67
Wind Velocity, Unit:	4.3 mph	5.6 mph
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	76.7 F	81.4 F
Soil Moisture:	NORMAL	Normal

This study was done at the John Seaton Anderson Research Center at Mead, NE, on a stand of Kentucky bluegrass with high populations of large crabgrass. The stand was mowed at 1.5 inches to encourage crabgrass germination and growth, and irrigated to prevent drought stress.

Results:

Applications were made on 1 July and 12 July at the 3-5 leaf to 1 tiller stage of crabgrass. On the 8 July rating, all treatments reduced crabgrass cover to 6% or less compared to 11% in the untreated check plots (Table 1). By the 12 July through the end of the study no differences were observed between treatments in terms of crabgrass control. All treatments except Acclaim reduced crabgrass cover to \leq 3% by the 12 July rating. All treatments except Acclaim Extra provided great control of crabgrass 81-95% at time of second application on 12 July (Table 2). Following the second application all treatments provided similar control for the remainder of the study although treatments of any quinclorac treatment applied once or twice provided better control than 2 application of Acclaim extra on most occasions. By the end of this study all treatment provided >92% control of crabgrass.

Crabgrass pressure/invasion this season was slower than normal due to a cooler spring, although in conclusion of this study check plots reached almost 50% cover of large crabgrass.

Conclusion: One application of Quali-Pro Quinclorac DF or Liquid Formulations provided excellent crabgrass control comparable to all other products at 1 or 2 applications.

Table 1. Effects of various herbicides on percent cover of crabgrass

Pest Scientific Name	Digitaria sanguinalis							
Pest Name	large crabgrass							
Crop Scientific Name	Poa pratensis							
Crop Name	Kentucky bluegrass							
Rating Date	7/1/2013	7/8/2013	7/12/2013	7/21/2013	7/31/2013			
Rating Type	Ground							
Rating Unit	%							
Days After First/Last Applic.	0 0	7 7	11 11	20 9	30 19			
Trt No.	Treatment Name	Application	Rate	1	2	3	4	5
			Rate Unit					
1	Untreated Check			9 a	12 a	18 a	35 a	47 a
2	QP Quinclorac 75 DF	Initial	16 oz/a	10 a	4 c	1 b	0 b	1 b
	NIS	Initial	0.25 % v/v					
3	QP Quinclorac Liquid	Initial	64 fl oz/a	8 a	4 bc	1 b	2 b	3 b
	NIS	Initial	0.25 % v/v					
4	Drive XLR8	Initial	64 fl oz/a	12 a	4 bc	1 b	1 b	1 b
	NIS	Initial	0.25 % v/v					
5	Acclaim Extra	Initial	21.1 fl oz/a	10 a	5 bc	2 b	3 b	2 b
	NIS	Initial	0.25 % v/v					
6	Tenacity	Initial	8 fl oz/a	10 a	4 c	2 b	2 b	1 b
	NIS	Initial	0.25 % v/v					
7	QP Quinclorac 75 DF	Initial + 14 DAIT	16 oz/a	10 a	4 c	2 b	0 b	1 b
	NIS	Initial + 14 DAIT	0.25 % v/v					
8	QP Quinclorac Liquid	Initial + 14 DAIT	64 fl oz/a	9 a	4 c	1 b	0 b	0 b
	NIS	Initial + 14 DAIT	0.25 % v/v					
9	Drive XLR8	Initial + 14 DAIT	64 fl oz/a	9 a	3 c	1 b	0 b	1 b
	NIS	Initial + 14 DAIT	0.25 % v/v					
10	Acclaim Extra	Initial + 14 DAIT	21.1 fl oz/a	10 a	7 b	5 b	2 b	3 b
	NIS	Initial + 14 DAIT	0.25 % v/v					
11	Tenacity	Initial + 14 DAIT	8 fl oz/a	12 a	4 bc	3 b	0 b	1 b
	NIS	Initial + 14 DAIT	0.25 % v/v					
	LSD (P=.05)			4.12	2.53	5.76	6.72	7.84
	Standard Deviation			2.42	1.49	3.38	3.94	4.6
	Treatment Prob(F)			0.8741	0.0001	0.0002	0.0001	0.0001

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

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

Table 2. Effects of various herbicides on percent control of crabgrass

Pest Scientific Name	Digitaria sanguinalis	Digitaria sanguinalis	Digitaria sanguinalis	Digitaria sanguinalis				
Pest Name	large crabgrass	large crabgrass	large crabgrass	large crabgrass				
Crop Scientific Name	Poa pratensis	Poa pratensis	Poa pratensis	Poa pratensis				
Crop Name	Kentucky bluegrass	Kentucky bluegrass	Kentucky bluegrass	Kentucky bluegrass				
Rating Date	7/8/2013	7/12/2013	7/21/2013	7/31/2013				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%UNCK	%UNCK	%UNCK	%UNCK				
Days After First/Last Applic.	7 7	11 11	20 9	30 19				
Trt No.	Treatment Name	Application	Rate	Rate	Rate	Rate		
			Rate	Unit	6	7	8	9
1	Untreated Check				0 c	0 c	0 c	0 c
2	QP Quinclorac 75 DF	Initial	16 oz/a		69 a	96 a	99 a	98 ab
	NIS	Initial	0.25 % v/v					
3	QP Quinclorac Liquid	Initial	64 fl oz/a		62 a	93 a	95 ab	94 ab
	NIS	Initial	0.25 % v/v					
4	Drive XLR8	Initial	64 fl oz/a		62 a	94 a	98 a	98 ab
	NIS	Initial	0.25 % v/v					
5	Acclaim Extra	Initial	21.1 fl oz/a		56 ab	89 a	93 ab	95 ab
	NIS	Initial	0.25 % v/v					
6	Tenacity	Initial	8 fl oz/a		66 a	89 a	95 ab	97 ab
	NIS	Initial	0.25 % v/v					
7	QP Quinclorac 75 DF	Initial + 14 DAIT	16 oz/a		69 a	91 a	99 a	99 a
	NIS	Initial + 14 DAIT	0.25 % v/v					
8	QP Quinclorac Liquid	Initial + 14 DAIT	64 fl oz/a		69 a	94 a	99 a	99 a
	NIS	Initial + 14 DAIT	0.25 % v/v					
9	Drive XLR8	Initial + 14 DAIT	64 fl oz/a		71 a	92 a	99 a	99 a
	NIS	Initial + 14 DAIT	0.25 % v/v					
10	Acclaim Extra	Initial + 14 DAIT	21.1 fl oz/a		39 b	57 b	91 b	93 b
	NIS	Initial + 14 DAIT	0.25 % v/v					
11	Tenacity	Initial + 14 DAIT	8 fl oz/a		62 a	81 ab	99 a	98 ab
	NIS	Initial + 14 DAIT	0.25 % v/v					
	LSD (P=.05)				22.33	27.79	6.68	5.76
	Standard Deviation				13.11	16.32	3.92	3.38
	Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001

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

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