

North Carolina State University

Spotted Spurge Control in Bermudagrass

Trial ID: 02-T28

Study Dir.: Jason Hinton

Location: Plymouth C.C.

Investigator: Fred Yelverton

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	EPHMA Flowering
Stage Scale:	2-6"Diam.
Density, Unit:	5 Ft ²

APPLICATION EQUIPMENT

	A
Appl. Equipment:	CO2 Spray
Operating Pressure:	36 PSI
Nozzle Type:	Flat Fan
Nozzle Size:	8002 XR
Nozzle Spacing, Unit:	10 Inch
Boom Height, Unit:	10 Inch
Ground Speed, Unit:	3 MPH
Carrier:	Water
Spray Volume, Unit:	32.5 GPA
Propellant:	Compr.CO2

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Weed Code								EPHMA	EPHMA	EPHMA		
Rating Data Type								CONTROL	CONTROL	CONTROL		
Rating Unit								%	%	%		
Rating Date								06-06-02	06-13-02	06-26-02		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Form Unit	Product Rate	Product Unit	Grow Stg	Appl Code			
1	PCC-1195 LI-700	2.5	EC L	0.0088 0.25	LB % V/V	A/A		Post Post	A A	13.8 cd	0.0 h	0.0 g
2	PCC-1195 LI-700	2.5	EC L	0.0176 0.25	LB % V/V	A/A		Post Post	A A	18.8 bcd	0.0 h	0.0 g
3	PCC-1133 PCC-1174 LI-700	2.5	EC L L	20.2 1.0 0.25	OZ/A % V/V % V/V			Post Post Post	A A A	12.5 cd	31.3 ef	40.0 de
4	PCC-1133 PCC-1174 LI-700	2.5	EC L L	40.4 1.0 0.25	OZ/A % V/V % V/V			Post Post Post	A A A	16.3 cd	62.5 abc	65.0 a-d
5	PCC-140 LI-700	1.5	EC L	0.063 0.25	LB % V/V	A/A		Post Post	A A	16.3 cd	1.3 h	0.0 g
6	PCC-1195 PCC-1133 PCC-1174 LI-700	2.5	EC EC L L	0.0088 20.2 1.0 0.25	LB OZ/A % V/V % V/V	A/A		Post Post Post Post	A A A A	12.5 cd	20.0 fg	43.8 cde
7	PCC-1195 PCC-1133 PCC-1174 LI-700	2.5	EC EC L L	0.0088 40.4 1.0 0.25	LB OZ/A % V/V % V/V	A/A		Post Post Post Post	A A A A	18.8 bcd	60.0 abc	83.8 ab
8	PCC-1195 PCC-1133 PCC-1174 LI-700	2.5	EC EC L L	0.0176 20.2 1.0 0.25	LB OZ/A % V/V % V/V	A/A		Post Post Post Post	A A A A	15.0 cd	38.8 de	36.3 ef
9	PCC-1195 PCC-1133 PCC-1174 LI-700	2.5	EC EC L L	0.0176 40.4 1.0 0.25	LB OZ/A % V/V % V/V	A/A		Post Post Post Post	A A A A	13.8 cd	62.5 abc	70.0 abc
10	PCC-1195 PCC-1133 PCC-140 PCC-1174 LI-700	2.5	EC EC EC L L	0.0088 20.2 0.063 1.0 0.25	LB OZ/A LB A/A % V/V % V/V	A/A		Post Post Post Post Post	A A A A A	15.0 cd	35.0 ef	43.8 cde
11	PCC-1195 PCC-1133 PCC-140 PCC-1174 LI-700	2.5	EC EC EC L L	0.0088 40.4 0.063 1.0 0.25	LB OZ/A LB A/A % V/V % V/V	A/A		Post Post Post Post Post	A A A A A	22.5 abc	53.8 bcd	65.0 a-d

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Rating Data Type									CONTROL	CONTROL	CONTROL	
Rating Unit									%	%	%	
Rating Date									06-06-02	06-13-02	06-26-02	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Form Unit	Product Rate	Product Unit	Grow Stg	Appl Code			
12	PCC-1195	2.5	EC	0.0176	LB	A/A		Post	A	17.5 cd	31.3 ef	48.8 cde
	PCC-1133	2.5	EC	20.2	OZ	A/A		Post	A			
	PCC-140	1.5	EC	0.063	LB	A/A		Post	A			
	PCC-1174		L	1.0	%	V/V		Post	A			
	LI-700		L	0.25	%	V/V		Post	A			
13	PCC-1195	2.5	EC	0.0176	LB	A/A		Post	A	22.5 abc	66.3 abc	88.8 a
	PCC-1133	2.5	EC	40.4	OZ	A/A		Post	A			
	PCC-140	1.5	EC	0.063	LB	A/A		Post	A			
	PCC-1174		L	1.0	%	V/V		Post	A			
	LI-700		L	0.25	%	V/V		Post	A			
14	PCC-1195	2.5	EC	0.0088	LB	A/A		Post	A	28.8 ab	15.0 gh	37.5 ef
	PCC-140	1.5	EC	0.063	LB	A/A		Post	A			
	PCC-1174		L	1.0	%	V/V		Post	A			
	LI-700		L	0.25	%	V/V		Post	A			
15	PCC-1195	2.5	EC	0.0176	LB	A/A		Post	A	28.8 ab	5.0 gh	12.5 fg
	PCC-140	1.5	EC	0.063	LB	A/A		Post	A			
	PCC-1174		L	1.0	%	V/V		Post	A			
	LI-700		L	0.25	%	V/V		Post	A			
16	2,4-D Amine	3.8	L	1.0	LB	A/A		Post	A	11.3 d	51.3 cd	57.5 b-e
	LI-700		L	0.25	%	V/V		Post	A			
17	Speedzone		L	3.0	PT	A		Post	A	31.3 a	71.3 a	90.0 a
18	Powerzone		L	3.0	PT	A		Post	A	30.0 a	68.8 ab	83.8 ab
19	Nontreated									0.0 e	0.0 h	0.0 g
LSD (P=.05)										10.77	15.20	26.87
Standard Deviation										7.62	10.75	19.00
CV										41.95	30.31	41.67
Bartlett's X2										20.759	14.261	23.573
P(Bartlett's X2)										0.237	0.506	0.052
Replicate F										4.187	0.663	1.865
Replicate Prob(F)										0.0098	0.5782	0.1464
Treatment F										4.145	24.158	10.991
Treatment Prob(F)										0.0001	0.0001	0.0001

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

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Rating Data Type								CONTROL	CONTROL	CONTROL		
Rating Unit								%	%	%		
Rating Date								07-02-02	07-11-02	07-25-02		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Form Unit	Product Rate	Product Unit	Grow Stg	Appl Code			
1	PCC-1195 LI-700	2.5	EC L	0.0088 0.25	LB % V/V	A/A		Post Post	A A	0.0 d	0.0 h	0.0 c
2	PCC-1195 LI-700	2.5	EC L	0.0176 0.25	LB % V/V	A/A		Post Post	A A	0.0 d	6.3 gh	0.0 c
3	PCC-1133 PCC-1174 LI-700	2.5	EC L L	20.2 1.0 0.25	OZ/A % V/V % V/V			Post Post Post	A A A	57.5 bc	61.3 bcd	31.3 b
4	PCC-1133 PCC-1174 LI-700	2.5	EC L L	40.4 1.0 0.25	OZ/A % V/V % V/V			Post Post Post	A A A	83.8 a	80.0 ab	80.0 a
5	PCC-140 LI-700	1.5	EC L	0.063 0.25	LB % V/V	A/A		Post Post	A A	0.0 d	18.8 fgh	0.0 c
6	PCC-1195 PCC-1133 PCC-1174 LI-700	2.5	EC EC L L	0.0088 20.2 1.0 0.25	LB OZ/A % V/V % V/V	A/A		Post Post Post Post	A A A A	41.3 c	37.5 def	15.0 bc
7	PCC-1195 PCC-1133 PCC-1174 LI-700	2.5	EC EC L L	0.0088 40.4 1.0 0.25	LB OZ/A % V/V % V/V	A/A		Post Post Post Post	A A A A	87.5 a	85.0 ab	86.3 a
8	PCC-1195 PCC-1133 PCC-1174 LI-700	2.5	EC EC L L	0.0176 20.2 1.0 0.25	LB OZ/A % V/V % V/V	A/A		Post Post Post Post	A A A A	40.0 c	47.5 de	25.0 b
9	PCC-1195 PCC-1133 PCC-1174 LI-700	2.5	EC EC L L	0.0176 40.4 1.0 0.25	LB OZ/A % V/V % V/V	A/A		Post Post Post Post	A A A A	82.5 a	76.3 abc	72.5 a
10	PCC-1195 PCC-1133 PCC-140 PCC-1174 LI-700	2.5	EC EC EC L L	0.0088 20.2 0.063 1.0 0.25	LB OZ/A LB A/A % V/V % V/V	A/A		Post Post Post Post Post	A A A A A	40.0 c	43.8 de	12.5 bc
11	PCC-1195 PCC-1133 PCC-140 PCC-1174 LI-700	2.5	EC EC EC L L	0.0088 40.4 0.063 1.0 0.25	LB OZ/A LB A/A % V/V % V/V	A/A		Post Post Post Post Post	A A A A A	80.0 a	77.5 ab	75.0 a

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Rating Data Type									CONTROL	CONTROL	CONTROL	
Rating Unit									%	%	%	
Rating Date									07-02-02	07-11-02	07-25-02	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Form Unit	Product Rate	Product Unit	Grow Stg	Appl Code			
12	PCC-1195	2.5	EC	0.0176	LB	A/A		Post	A	50.0 c	52.5 cd	25.0 b
	PCC-1133	2.5	EC	20.2	OZ	A/A		Post	A			
	PCC-140	1.5	EC	0.063	LB	A/A		Post	A			
	PCC-1174		L	1.0	%	V/V		Post	A			
	LI-700		L	0.25	%	V/V		Post	A			
13	PCC-1195	2.5	EC	0.0176	LB	A/A		Post	A	87.5 a	91.3 a	85.0 a
	PCC-1133	2.5	EC	40.4	OZ	A/A		Post	A			
	PCC-140	1.5	EC	0.063	LB	A/A		Post	A			
	PCC-1174		L	1.0	%	V/V		Post	A			
	LI-700		L	0.25	%	V/V		Post	A			
14	PCC-1195	2.5	EC	0.0088	LB	A/A		Post	A	15.0 d	25.0 efg	0.0 c
	PCC-140	1.5	EC	0.063	LB	A/A		Post	A			
	PCC-1174		L	1.0	%	V/V		Post	A			
	LI-700		L	0.25	%	V/V		Post	A			
15	PCC-1195	2.5	EC	0.0176	LB	A/A		Post	A	0.0 d	12.5 gh	0.0 c
	PCC-140	1.5	EC	0.063	LB	A/A		Post	A			
	PCC-1174		L	1.0	%	V/V		Post	A			
	LI-700		L	0.25	%	V/V		Post	A			
16	2,4-D Amine	3.8	L	1.0	LB	A/A		Post	A	73.8 ab	51.3 d	35.0 b
	LI-700		L	0.25	%	V/V		Post	A			
17	Speedzone		L	3.0	PT	A/A		Post	A	91.3 a	87.5 a	86.3 a
18	Powerzone		L	3.0	PT	A/A		Post	A	87.5 a	85.0 ab	78.8 a
19	Nontreated									0.0 d	0.0 h	0.0 c
LSD (P=.05)										21.60	23.99	24.61
Standard Deviation										15.27	16.96	17.40
CV										31.63	34.33	46.74
Bartlett's X2										43.975	35.326	22.84
P(Bartlett's X2)										0.001*	0.004*	0.029*
Replicate F										1.363	2.081	0.627
Replicate Prob(F)										0.2638	0.1136	0.6007
Treatment F										22.466	14.023	16.929
Treatment Prob(F)										0.0001	0.0001	0.0001

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Rating Data Type								CONTROL	CONTROL		
Rating Unit								%	%		
Rating Date								08-08-02	08-29-02		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Form Unit	Product Rate	Product Unit	Grow Stg	Appl Code		
1	PCC-1195 LI-700	2.5	EC L	0.0088 0.25	LB %	A/A V/V		Post Post	A A	6.3 fg	0.0 g
2	PCC-1195 LI-700	2.5	EC L	0.0176 0.25	LB %	A/A V/V		Post Post	A A	8.8 efg	0.0 g
3	PCC-1133 PCC-1174 LI-700	2.5	EC L L	20.2 1.0 0.25	OZ %	A/A V/V V/V		Post Post Post	A A A	51.3 bcd	6.3 fg
4	PCC-1133 PCC-1174 LI-700	2.5	EC L L	40.4 1.0 0.25	OZ %	A/A V/V V/V		Post Post Post	A A A	73.8 ab	61.3 abc
5	PCC-140 LI-700	1.5	EC L	0.063 0.25	LB %	A/A V/V		Post Post	A A	21.3 d-g	6.3 fg
6	PCC-1195 PCC-1133 PCC-1174 LI-700	2.5 2.5	EC EC L L	0.0088 20.2 1.0 0.25	LB OZ %	A/A A/A V/V V/V		Post Post Post Post	A A A A	33.8 def	18.8 d-g
7	PCC-1195 PCC-1133 PCC-1174 LI-700	2.5 2.5	EC EC L L	0.0088 40.4 1.0 0.25	LB OZ %	A/A A/A V/V V/V		Post Post Post Post	A A A A	87.5 a	65.0 ab
8	PCC-1195 PCC-1133 PCC-1174 LI-700	2.5 2.5	EC EC L L	0.0176 20.2 1.0 0.25	LB OZ %	A/A A/A V/V V/V		Post Post Post Post	A A A A	30.0 d-g	36.3 cde
9	PCC-1195 PCC-1133 PCC-1174 LI-700	2.5 2.5	EC EC L L	0.0176 40.4 1.0 0.25	LB OZ %	A/A A/A V/V V/V		Post Post Post Post	A A A A	71.3 abc	31.3 def
10	PCC-1195 PCC-1133 PCC-140 PCC-1174 LI-700	2.5 2.5 1.5	EC EC EC L L	0.0088 20.2 0.063 1.0 0.25	LB OZ LB %	A/A A/A A/A V/V V/V		Post Post Post Post Post	A A A A A	18.8 d-g	12.5 efg
11	PCC-1195 PCC-1133 PCC-140 PCC-1174 LI-700	2.5 2.5 1.5	EC EC EC L L	0.0088 40.4 0.063 1.0 0.25	LB OZ LB %	A/A A/A A/A V/V V/V		Post Post Post Post Post	A A A A A	81.3 ab	63.8 abc

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Rating Data Type									CONTROL	CONTROL	
Rating Unit									%	%	
Rating Date									08-08-02	08-29-02	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Product Rate	Product Unit	Grow Stg	Appl Code		
12	PCC-1195	2.5	EC	0.0176	LB A/A			Post	A	25.0 d-g	30.0 def
	PCC-1133	2.5	EC		20.2 OZ/A			Post	A		
	PCC-140	1.5	EC	0.063	LB A/A			Post	A		
	PCC-1174		L		1.0 % V/V			Post	A		
	LI-700		L		0.25 % V/V			Post	A		
13	PCC-1195	2.5	EC	0.0176	LB A/A			Post	A	86.3 a	67.5 ab
	PCC-1133	2.5	EC		40.4 OZ/A			Post	A		
	PCC-140	1.5	EC	0.063	LB A/A			Post	A		
	PCC-1174		L		1.0 % V/V			Post	A		
	LI-700		L		0.25 % V/V			Post	A		
14	PCC-1195	2.5	EC	0.0088	LB A/A			Post	A	21.3 d-g	12.5 efg
	PCC-140	1.5	EC	0.063	LB A/A			Post	A		
	PCC-1174		L		1.0 % V/V			Post	A		
	LI-700		L		0.25 % V/V			Post	A		
15	PCC-1195	2.5	EC	0.0176	LB A/A			Post	A	12.5 efg	6.3 fg
	PCC-140	1.5	EC	0.063	LB A/A			Post	A		
	PCC-1174		L		1.0 % V/V			Post	A		
	LI-700		L		0.25 % V/V			Post	A		
16	2,4-D Amine	3.8	L		1.0 LB A/A			Post	A	40.0 cde	42.5 bcd
	LI-700		L		0.25 % V/V			Post	A		
17	Speedzone		L		3.0 PT/A			Post	A	85.0 a	81.3 a
18	Powerzone		L		3.0 PT/A			Post	A	85.0 a	71.3 a
19	Nontreated									0.0 g	0.0 g
LSD (P=.05)									32.78	27.62	
Standard Deviation									23.18	19.53	
CV									52.5	60.59	
Bartlett's X2									25.237	18.469	
P(Bartlett's X2)									0.09	0.239	
Replicate F									0.247	1.077	
Replicate Prob(F)									0.8630	0.3666	
Treatment F									7.468	8.333	
Treatment Prob(F)									0.0001	0.0001	

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

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Trial Comments