Speedzone seedling safety
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This study was conducted at the John Seaton Anderson Turf Center outside Mead, NE in 2013.

Treatments of Speedzone were initiated on 27 June 14 days before seeding (DBS) and continued every 7 days until 20 August 35 days after seeding(DAS). Treatments were applied to bare soil at the start of the study then at different stages of seedling growth as the turf matured. Seeding occurred on 11 July at the 0 DBS timing. Treated plots were power-raked in two directions then seeded with T1/Alpha bentgrass at 1 lb./1000ft2 or a blend of perennial ryegrass at 5 lb./1000ft2. After seeding 8 lb./A of Tupersan was applied for weed control for the remainder of the study and 1 lb. P205/1000ft2 was applied using 11-52-0 fertilizer. Plots were rated for phytotoxicity starting 14 DAS on a scale of 1-9 with 1=dead turf, 6 = acceptable and 9= no damage. Percent cover was also rated on a scale of 0-100% starting 21 DAS.

Bentgrass:
Phytotoxicity: The only significant damage that was observed was on the 13 August rating 28 DAS where both the 14 and 21 DAS applications resulted in more phytotoxicity than the untreated plots (Table 1).
% cover: Treatments applied 0 & 7 DAS resulted in lower turf cover than the untreated plots when rated on 6 & 13 of August (21 & 28 DAS) (Table 2.) By the 20 August rating until the end of the study no differences in % cover were observed.
Ryegrass:
At no time during this study was there any significant differences to ryegrass phytotoxicity or % cover.(Table 3 &4)

Conclusion: Speedzone has potential for postemergence goosegrass control on golf course tee's and practice range tees. Applying Speedzone at anytime before or after seeding ryegrass will result in no negative effects according to this study. When seeding bengrass, applications of Speedzone should not be made 0 DBS or 7 DAS although no differences bentgrass cover were observed in those plots for the remainder of this study.

Table 1. Phytotoxicity to seedling bentgrass after various application timings of Speedzone before and after seeding

Description					Bent phyto	Bent phyto	Bent phyto	Bent phyto	Bent phyto	Bent phyto
Rating Date					7/29/2013	8/6/2013	8/13/2013	8/20/2013	8/27/2013	9/3/2013
Days after Seeding					14	21	28	35	42	49
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Appl Description	1	3	7	11	15	19
1	Untreated Check					9 a	9 a	9 a	9 a	9 a	9 a
2	Speedzone	3	pt/a	A	14 DBS	8.7 a	9 a	9 a	8.3 a	8.7 a	9 a
3	Speedzone	3	pt/a	B	7 DBS	8 a	9 a	9 a	9 a	9 a	9 a
4	Speedzone	3	pt/a	C	0 DBS	7 a	9 a	9 a	9 a	9 a	9 a
5	Speedzone	3	pt/a	D	7 DAS	7.3 a	8.3 a	9 a	8 a	8.7 a	9 a
6	Speedzone	3	pt/a	E	14 DAS	9 a	8.3 a	8 b	7.7 a	8.7 a	9 a
7	Speedzone	3	pt/a	F	21 DAS	9 a	9 a	8 b	7 a	8.3 a	9 a
8	Speedzone	3	pt/a	G	28 DAS	8.7 a	9 a	9 a	8.3 a	8.7 a	9 a
9	Speedzone	3	pt/a	H	35 DAS	9 a	9 a	9 a	9 a	9 a	9 a
LSD (P=.05)						1.82	0.78	0.58	1.77	0.76	0
Standard Deviation						1.05	0.45	0.33	1.03	0.44	0
Treatment Prob(F)						0.1901	0.3232	0.0024	0.2459	0.5696	1

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. % bentgrass cover after various application timings of Speedzone before and after seeding

Description					Bent cover		Bent cover		Bent cover		Bent cover		Bent cover	
Rating Date					8/6/2013		8/13/2013		8/20/2013		8/27/2013		9/3/2013	
Days after Seeding					21		28		35		42		49	
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Appl Description	5		9		13		17		21	
1	Untreated Check					58.3	a	73.3	ab	91.7	a	93.3	a	97	a
2	Speedzone	3	pt/a	A	14 DBS	53.3	ab	75	a	88.3	a	93.3	a	97	a
3	Speedzone	3	pt/a	B	7 DBS	45	ab	58.3	abc	70	a	81.7	a	87.7	a
4	Speedzone	3	pt/a	C	0 DBS	40	b	56.7	bc	70	a	81.7	a	88.7	a
5	Speedzone	3	pt/a	D	7 DAS	21.7	c	43.3	c	60	a	78.3	a	89.3	a
6	Speedzone	3	pt/a	E	14 DAS	45	ab	58.3	abc	66.7	a	81.7	a	92	a
7	Speedzone	3	pt/a	F	21 DAS	56.7	ab	70	ab	80	a	88.3	a	97	a
8	Speedzone	3	pt/a	G	28 DAS	48.3	ab	61.7	ab	76.7	a	83.3	a	96	a
9	Speedzone	3	pt/a	H	35 DAS	56.7	ab	65	ab	81.7	a	88.3	a	97	a
LSD (P=.05)						18.02		17		24.59		13.53		11.4	
Standard Deviation						10.41		9.82		14.2		7.82		6.58	
Treatment Prob(F)						0.0131		0.0291		0.2013		0.2447		0.3876	

Means followed by same letter do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatme

Table 3. Phytotoxicity to seedling ryegrass after various application timings of Speedzone before and after seeding

Description					Rye phyto		Rye phyto		Rye phyto		Rye phyto		Rye phyto		Rye phyto	
Rating Date					7/29/2013		8/6/2013		8/13/2013		8/20/2013		8/27/2013		9/3/2013	
Days after Seeding					14		21		28		35		42		49	
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Appl Description	2		4		8		12		16		20	
1	Untreated Check					9	a	9	a	9	a	9	a	9	a	9	a
2	Speedzone	3	pt/a	A	14 DBS	9	a	9	a	9	a	9	a	9	a	9	a
3	Speedzone	3	pt/a	B	7 DBS	8.3	a	9	a	9	a	9	a	9	a	9	a
4	Speedzone	3	pt/a	C	0 DBS	8.7	a	9	a	9	a	9	a	9	a	9	a
5	Speedzone	3	pt/a	D	7 DAS	8.7	a	9	a	9	a	9	a	9	a	9	a
6	Speedzone	3	pt/a	E	14 DAS	9	a	8.7	a	9	a	9	a	9	a	9	a
7	Speedzone	3	pt/a	F	21 DAS	9	a	9	a	9	a	9	a	9	a	9	a
8	Speedzone	3	pt/a	G	28 DAS	9	a	9	a	9	a	9	a	9	a	9	a
9	Speedzone	3	pt/a	H	35 DAS	9	a	9	a	9	a	9	a	9	a	9	a
LSD (P=.05)						0.73		0.33		0		0		0		0	
Standard Deviation						0.42		0.19		0		0		0		0	
Treatment Prob(F)						0.4726		0.4726		1		1		1		1	

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. % ryegrass cover after various application timings of Speedzone before and after seeding

Description					Rye cover		Rye cover		Rye cover		Rye cover		Rye cover	
Rating Date					8/6/2013		8/13/2013		8/20/2013		8/27/2013		9/3/2013	
Days after Seeding					21		28		35		42		49	
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Appl Description	6		10		14		18		22	
1	Untreated Check					66.7	a	81.7	a	95	a	95	a	98	a
2	Speedzone	3	pt/a	A	14 DBS	65	a	81.7	a	93.3	a	95	a	98	a
3	Speedzone	3	pt/a	B	7 DBS	56.7	a	78.3	a	86.7	a	91.7	a	94.3	a
4	Speedzone	3	pt/a	C	0 DBS	63.3	a	81.7	a	90	a	93.3	a	97	a
5	Speedzone	3	pt/a	D	7 DAS	65	a	83.3	a	93.3	a	93.3	a	97	a
6	Speedzone	3	pt/a	E	14 DAS	66.7	a	80	a	90	a	93.3	a	98	a
7	Speedzone	3	pt/a	F	21 DAS	70	a	81.7	a	93.3	a	93.3	a	98	a
8	Speedzone	3	pt/a	G	28 DAS	60	a	78.3	a	91.7	a	91.7	a	96	a
9	Speedzone	3	pt/a	H	35 DAS	66.7	a	80	a	90	a	93.3	a	97	a
LSD (P=.05)						13.8		6.89		8.99		4.21		2.5	
Standard Deviation						7.97		3.98		5.19		2.43		1.44	
Treatment Prob(F)						0.646		0.8098		0.6647		0.683		0.0875	

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.

Site and Design								
Plot Width,	5	FT						
Plot Length	5	FT						
Plot Area, (	25		FT2					
Replication	3							
Study Design:		RACOBL	Randomized Complete Blc					
Application Description								
A		B	C	D	E	F	G	H
Application	6/27/2013	7/3/2013	7/11/2013	7/21/2013	7/29/2013	8/6/2013	8/13/2013	8/20/2013
Application	spray	spray	spray	spray	spray	spray	spray	spray
Application	broad	broad	broad	broad	broad	broad	broad	broad
Air Temper	74 f	78 f	79 f	82 f	64 f	81 f	72 f	81 f
% Relative	83	70	70	76	92	86	74	76
Soil Tempe	76 f	76 f	81 f	82 f	70 f	77 f	88 f	77 f