

***Poa annua* Control on Greens with Fall Application of Ronstar**  
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**Background/Objective:** To investigate if Ronstar controls annual bluegrass with fall applications, and evaluate safety when applied to greens-height creeping bentgrass.

**Site Information**

<b>Location:</b>	William H. Daniel Research and Diagnostic Center
<b>Turfgrass Species:</b>	Penncross creeping bentgrass
<b>Turf Condition:</b>	good
<b>Turf Management:</b>	<b>Mowing Height in:</b> 0.125 in
	<b>Fertilization:</b> 5 lbs/M/yr
	<b>Irrigation:</b> To prevent moisture stress
<b>Target Pest:</b>	Annual bluegrass ( <i>Poa annua</i> )
<b>Growth Stage:</b>	prior to germination

**Application Information**

<b>Application Date:</b>	in 2005	12 Sept
<b>Spray Volume gal 1000 ft<sup>-2</sup>:</b>		2
<b>Spray Equipment:</b>		Hand shaker bottle and CO <sub>2</sub> backpack
<b>Experimental Design:</b>		Randomized complete block
<b>Replications:</b>		3
<b>Plot Size ft:</b>		5 X 5

**Results:**

This study was done on two different areas. An 8-year-old native soil green was used to determine phytotoxicity of the treatments to Pennlinks creeping bentgrass. The second area was maintained as a fairway with heavy *Poa annua* populations. This area was sprayed with glyphosate immediately prior to the experiment to kill existing turf and enable easy and accurate determination of *Poa annua* germination.

As expected, all formulations of Ronstar and Bensumec did an excellent job of controlling emerging *Poa annua* (Table 1). However, all Ronstar treatments caused phytotoxicity to the creeping bentgrass compared to the check and Bensumec (Table 2). As expected, the higher rates of each formulation were more phytotoxic than the lower rates. The 0.55G formulation was more phytotoxic than the 2G formulation. Ronstar 0.55G caused unacceptable phytotoxicity on both rating dates, whereas the 2G formulation caused visible but "acceptable" phytotoxicity. Ronstar 0.55G at both rates and the 2G formulation at 3 lbs ai/A reduced cover of creeping bentgrass on all three rating dates. Ronstar 2G at 2 lbs ai/A only reduced creeping bentgrass cover on 14 Oct.

Ronstar 0.55G is too damaging for *Poa annua* control on creeping bentgrass greens, but the 2G formulation appears to have more promise for this use. Lower rates and perhaps split applications should be investigated.

**Table 1.** Percent cover<sup>a</sup> of newly germinated *Poa annua* after application of preemergence herbicide.

Treatment	Rate of application	Percent cover		
		Oct 4	Oct 14	Nov 11
	lb ai/A			
Check		8.3	30.0	71.7
Ronstar 2G	2	0.7	1.3	3.3
Ronstar 2G	3	0.7	1.3	5.3
Ronstar 0.55G	2	0.0	0.0	1.0
Ronstar 0.55G	3	0.0	0.0	0.0
Bensumec 4LF	12.5	1.0	1.0	3.0
LSD 0.05		2.3	4.1	7.1

<sup>a</sup> Cover is the percent of the plot area covered by *Poa annua*.

**Table 2.** Phytotoxicity<sup>a</sup> to and percent cover<sup>b</sup> of Pennlinks creeping bentgrass after application of preemergence herbicides to control *Poa annua*.

Treatment	Rate of application	phytotoxicity		Percent cover		
		Sept 19	Sept 26	Oct 4	Oct 14	Nov 11
	lb ai/A					
Check		9.0	9.0	100.0	100.0	99.0
Ronstar 2G	2	8.0	8.3	96.0	91.7	95.7
Ronstar 2G	3	7.3	7.3	88.3	81.7	85.0
Ronstar 0.55G	2	6.0	5.7	60.0	61.7	78.3
Ronstar 0.55G	3	3.3	4.3	36.7	23.3	33.3
Bensumec 4LF	12.5	9.0	9.0	100.0	100.0	99.0
LSD 0.05		0.6	0.9	9.7	6.6	8.0

<sup>a</sup> Phytotoxicity was rated on a scale of 1 to 9 where 1 = completely brown turf, 7 = acceptable damage, and 9 = no phytotoxicity.

<sup>b</sup> Cover is the percent of the plot area covered by green bentgrass.