

## ETQ Kentucky Bluegrass Spring Mitigation in Golf Course and Commercial Turf

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**Background/Objective:** Enhanced Turf Quality (ETQ) Kentucky bluegrass is being evaluated for commercial and golf course turf to replace current Kentucky bluegrasses. If commercialized, ETQ Kentucky bluegrass may become a weed in non-glyphosate resistance stands. Therefore, our objective is to evaluate herbicides for postemergence control of ETQ Kentucky bluegrass in spring and summer applications.

### Site Information

<b>Location:</b>	William H. Daniel Research and Diagnostic Center
<b>Turfgrass Species:</b>	Kentucky bluegrass blend
<b>Turf Condition:</b>	good
<b>Turf Management:</b>	<b>Mowing Height in:</b> 2.5
	<b>Fertilization:</b> 1 lb N/M/YR
	<b>Irrigation:</b> To prevent moisture stress
<b>Target Pest:</b>	<i>Poa pratensis</i> (Kentucky bluegrass)
<b>Growth Stage:</b>	mature

### Application Information

<b>Application Dates:</b> in 2005	13 June	23 June	14 July	9 Aug
<b>Spray Volume gal 1000 ft<sup>-2</sup>:</b>	2			
<b>Spray Equipment:</b>	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:

- Two applications of Roundup Pro provided the best control by 7 Oct, far better than a single application of Roundup (Table 1). This demonstrates the recuperative ability of a spreading grass like Kentucky bluegrass to recover and emphasizes that less than 100% control cannot be tolerated when remediating spreading grassy weeds.
- Two Fusilade applications followed by Envoy provided 85% control by Oct. Control from this treatment was far better than either two Fusilade or Envoy applications, but we are unsure if three applications of either Fusilade or Envoy would produce the same results. In our earlier work with multiple universities, two applications of either herbicide provided between 60 and 100% control of Kentucky bluegrass 8 weeks after initial treatment. Since these two products hold potential for Kentucky bluegrass control, three applications of each should be investigated.
- Two applications of Monument provided 78% control by Oct. Three applications of Monument should also be investigated.
- Though most of the other herbicides caused some short term control, none of the other treatments provided even marginally acceptable control.
- Multiple applications of Velocity herbicide may also be useful for selective control of Kentucky bluegrass and should also be investigated.

**Table 1.** Control<sup>a</sup> of Kentucky bluegrass from spring applications of selective or non-selective herbicides

Treatment	Rate of application	2 July	14 July	12 Aug	7 Oct
	lb ai/A				
Roundup Pro 3#ae	1.5 <sup>b</sup>	75.0	73.3	35.0	8.3
Roundup Pro 3#ae <sup>e</sup>	1.5 <sup>b</sup>	75.0	78.3	99.3	97.3
Roundup Pro 3#ae	1.5 <sup>b</sup>				
Fusilade II 2L <sup>ce</sup>	0.38	50.0	51.7	65.0	15.0
Fusilade II 2L <sup>c</sup>	0.38				
Envoy 0.94EC <sup>ce</sup>	0.25	50.0	60.0	63.3	41.7
Envoy 0.94EC <sup>c</sup>	0.25				
Fusilade II 2L <sup>ce</sup>	0.38	41.7	35.0	60.0	85.0
Fusilade II 2L <sup>c</sup>	0.38				
Envoy 0.94EC <sup>c</sup>	0.25				
Vantage 1EC <sup>ce</sup>	0.47	40.0	25.0	30.0	3.3
Vantage 1EC <sup>c</sup>	0.47				
Revolver 0.19SC	0.03	40.0	16.7	0.0	1.7
Revolver 0.19SC <sup>e</sup>	0.03	43.3	18.3	56.7	11.0
Revolver 0.19SC	0.03				
Monument 75WG <sup>d</sup>	0.03	56.7	71.7	46.7	7.7
Monument 75WG <sup>de</sup>	0.03	60.0	63.3	95.0	78.7
Monument 75WG <sup>d</sup>	0.03				
Finale 1SL	1.5	75.0	46.7	1.0	1.7
Finale 1SL <sup>e</sup>	1	66.7	33.3	56.7	7.7
Finale 1SL	1				
Reward 2EC <sup>def</sup>	1	80.0	21.7	3.3	0.0
Reward 2EC <sup>d</sup>	1				
Tranxit 25DF <sup>d</sup>	0.03	41.7	26.7	0.0	1.0
Tranxit 25DF <sup>de</sup>	0.03	35.0	5.0	28.3	11.0
Tranxit 25DF <sup>d</sup>	0.03				
Check		0.0	0.0	0.0	0.0
LSD (0.05)		19.1	29.1	22.1	24.5

<sup>a</sup> Control was rated on a scale of 0 to 100 where 0 = no control and 100 = complete control.

<sup>b</sup> Rate of application was pounds ae per acre.

<sup>c</sup> Treatment included crop oil concentrate at 1 percent volume per volume.

<sup>d</sup> Treatment included non ionic surfactant at 0.25 percent volume per volume.

<sup>e</sup> Treatments had four week split application with the first split being applied 14 July and the second split application being applied 9 Aug.

<sup>f</sup> Initial application of this treatment was 23 June.