

## 2006-01-A7-08: Tall fescue control in Kentucky bluegrass with Certainty herbicide

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**Background/Objective:** Tall fescue is a weed problem infesting Kentucky bluegrass fairways and roughs, athletic fields, landscapes, sod production, and home lawns. Previous Monsanto and university trials showed excellent selective postemergent suppression and/or control of tall fescue with Certainty herbicide. The objective is to demonstrate tall fescue control and safety to Kentucky bluegrass from sequential applications of Certainty herbicide.

### Site Information

<b>Location:</b>	William H. Daniel Research and Diagnostic Center
<b>Soil Type:</b>	Starks-Fincastle silt loam
<b>Soil pH:</b>	7.2
<b>Turfgrass Species:</b>	Kentucky bluegrass blend
<b>Turf Condition:</b>	good
<b>Turf Management: Mowing Height cm (in):</b>	6.4 (2.5)
<b>Fertilization:</b>	1 lb N/M/YR
<b>Irrigation:</b>	To prevent moisture stress
<b>Testing on Site Previous Year:</b>	none
<b>Target Pest:</b>	'K31" tall fescue ( <i>Festuca arundinacea</i> )
<b>Growth Stage:</b>	mature

### Application Information

<b>Application Date:</b>	6 June	28 June
<b>Application Time:</b>	10:00 am	9:30 am
<b>Air Temperature C<sup>0</sup>(F<sup>0</sup>):</b>	25.6 (78)	22 (72)
<b>Relative Humidity(%):</b>	42	66
<b>Wind Speed m s<sup>-1</sup> (mph):</b>	1.3 (3)	1.8 (4)
<b>Soil Temperature(7.6 cm depth) C<sup>0</sup>(F<sup>0</sup>):</b>	22 (72)	21.1 (70)
<b>Soil Moisture:</b>	moist	moist
<b>Spray Volume L ha<sup>-1</sup> (gal 1000 ft<sup>-2</sup>):</b>	814 (2)	
<b>Spray Pressure:</b>	30psi	
<b>Spray Nozzle:</b>	8001.5	
<b>Spray Equipment:</b>	CO <sub>2</sub> backpack	
<b>Irrigation After Application:</b>	None	
<b>Experimental Design:</b>	Randomized complete block	
<b>Replications:</b>	3	
<b>Plot Size m (ft):</b>	1.5 X 1.5 (5 X 5)	

### Report:

- This study was applied to two separate turf stands of 100% Kentucky bluegrass or 100% K31 tall fescue, both mowed at 2.5 inches.
- Both Certainty treatments dramatically damaged tall fescue in terms of injury and percent cover (Table 1).
- Though both Certainty treatments caused short term injury to Kentucky bluegrass, neither treatments reduced cover of Kentucky bluegrass (Table 2).

**Table 1.** Injury to and percent cover of K31 tall fescue after applications of Certainty.

Treatment	Rate of application	Injury <sup>a</sup>		Cover <sup>b</sup>	
		30 June	7 July	2 Aug	18 Sept
	a.i./A			%	
Certainty <sup>c</sup>	0.035	4.0	3.0	6.0	8.3
Certainty <sup>d</sup>	0.035				
Certainty	0.047	3.0	2.3	2.0	5.3
Certainty <sup>d</sup>	0.047				
Check		9.0	9.0	85.0	88.3
LSD (0.05)		1.3	1.8	3.9	9.4

<sup>a</sup> Injury was rated on a scale of 1 to 9 with 1 = totally brown turf, 7 = acceptable injury, and 9 = no injury.

<sup>b</sup> Percent of the plot area covered by tall fescue.

<sup>c</sup> Applications of Certainty included NIS at 0.25% v/v.

<sup>d</sup> Indicates a split application with the second application being 3 weeks later.

**Table 2.** Injury to and percent cover of Kentucky bluegrass after applications of Certainty.

Treatment	Rate of application	Injury <sup>a</sup>		Cover <sup>b</sup>
		20 June	7 July	2 Aug
	a.i./A			% <sup>b</sup>
Certainty <sup>c</sup>	0.035	7.7	7.0	91.3
Certainty <sup>d</sup>	0.035			
Certainty	0.047	7.7	7.0	86.7
Certainty <sup>d</sup>	0.047			
Check		9.0	9.0	98.7
LSD (0.05)		NS	NS	NS

<sup>a</sup> Injury was rated on a scale of 1 to 9 with 1 = totally brown turf, 7 = acceptable injury, and 9 = no injury.

<sup>b</sup> Percent of the plot area covered by Kentucky bluegrass.

<sup>c</sup> Applications of Certainty included NIS at 0.25% v/v.

<sup>d</sup> Indicates a split application with the second application being 3 weeks later.