

Tolerance of Cool-season Grasses to Formulations of Prodiamine

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Background/Objective:

Determine the Phytotoxicity potential of MANA-PRO 65WDG verses Barricade 65WDG.

Site Information

Location:	W.H. Daniel Research and Diagnostic Center
Soil Type:	Starks-Fincastle silt loam
Soil pH:	7.2
Soil Organic Matter (%):	4-7%
Turfgrass Species:	Perennial rye, Kentucky blue, Creeping bent
Turf Condition:	Good, Good, Good
Turf Management:	
Mowing Height cm (in):	6.35 (2.5), 6.35 (2.5), 1.27 (0.5)
Fertilization:	3 lbs N/1000 ft ² /yr ²
Irrigation:	To prevent moisture stress
Testing on Site Previous Year:	None
Target Pest:	Phytotoxicity
Growth Stage:	Mature

Application Information

Application Date:	23 April
Application Time:	7:30am
Air Temperature C⁰(F⁰):	9.3 (49)
Relative Humidity(%):	82
Wind Speed m s⁻¹ (mph):	3.1 (7)
Soil Temperature(7.6 cm depth) C⁰(F⁰):	10 (50)
Soil Moisture:	moist
Spray Volume L ha⁻¹ (gal 1000 ft⁻²):	814 (2)
Spray Pressure:	35psi
Spray Nozzle:	8001.5
Spray Equipment:	CO ₂ backpack
Irrigation After Application:	None
Experimental Design:	Randomized complete block
Replications:	3
Plot Size m (ft):	1.5 X 1.5 (5 X 5)

Results:

Phytotoxicity ratings were taken on 26 Apr., 30 Apr., 7 May, 21 May, 15 June, 16 July, and 23 Aug. No phytotoxicity was observed on any specie on any rating date. Therefore, MANA-PRO 65WDG at 0.75, 1.5, and 3.0 lbs/A is equally as safe as Barricade 65WDG on perennial ryegrass, Kentucky bluegrass, and creeping bentgrass under the conditions of this study. Please note that the weather this summer was extremely mild and wet, and may not be reflective of a typical Indiana summer.