



Figure 1. Predicted probabilities of spike treatments to be rated as either "Excellent", "Very Good", "Good", "Fair", or "Poor". Probabilities were estimated using logistic regression analysis of data collected from 3 replicate plots evaluated from **four locations (Forest Glen C.C. Royal Poinciana G.C., Naples Beach G.C., and Brookshire Inn and G.C.)**. Bars that do not share a letter are significantly different ($\alpha = 0.05$).

***Poa annua* Management in Creeping Bentgrass at Putting Green Height with several Herbicide and Nitrogen Regimes**

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Management of *Poa annua* in bentgrass putting greens has always been problematic and control without detriment to bentgrass quality and playability continues to be an important topic on golf courses and at The Hancock Turfgrass Research Center. *Poa annua* winterkill/severe injury concerns have heightened following the polar vortex of 2013/14 as have superintendent thoughts about controlling *Poa annua* as it infiltrates into greens and fairways. Although a daunting task, there is no shortage of new products and ideas when it comes to controlling annual bluegrass.

In this study 12 annual bluegrass control regimes were initiated on a creeping bentgrass putting green featuring combinations of five products maintained on plots with two rates of nitrogen (Table 1). Methiozolin (PoaCure), amicarbazone (Xonerate), bispyribac sodium (Velocity), paclobutrazol (Trimmit), and flurprimidol (Cutless) were applied every 2 weeks starting on June 24, 2013 in combination with urea, as a tankmix, at 0.1 lbs N/M (low rate) and 0.2 lbs N/M (high rate).

Nitrogen rates are included in the study because high rates of nitrogen should help mask injury to the bentgrass caused by some of these herbicides while low rates of nitrogen are thought to favor annual bluegrass over creeping bentgrass. The two nitrogen rates could result in long term differences and a possible trade-off between decreased turf quality (low rate) and decreased annual bluegrass control (high rate) for the end-user.

These herbicides are intended to provide a gradual and subtle control of annual bluegrass throughout the growing season so that bare soil doesn't result and creeping bentgrass is able to spread and overtake weakened annual bluegrass. You are invited to stop by the site and judge each herbicides effectiveness for yourself.

Table 1: Treatment List for Annual Bluegrass Control on a Putting Green

1	methiozolin (PoaCure)	Low N	Biweekly
2		High N	
3	methiozolin (PoaCure)	Low N	Biweekly
4		High N	Fall Treatments*
5	amicarbazone (Xonerate)	Low N	Biweekly
6		High N	
7	bispyribac sodium (Velocity)	Low N	Biweekly
8		High N	
9	paclobutrazol (Trimmit)	Low N	Biweekly
10		High N	
11	flurprimidol (Cutless)	Low N	Biweekly
12		High N	
13	Untreated	Low N	Biweekly
14		High N	

*Initiated September 16, 2013 with follow-up applications October 2 and 16.