

Stop #10: Optimal Management Practices for Kikuyugrass Quality and Playing Conditions

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This kikuyugrass (*Pennisetum clandestinum* Hochst. ex Chiov.) field study was initiated in August 2011 to identify cultural and chemical practices that are most important for producing quality turf and optimal playing conditions on golf course fairways. The cultivar 'Whittet' was established from sod on a Hanford fine sandy loam. A two-level, five-factor factorial design was used to evaluate mowing frequency (three vs. six times/wk), cultivation (grooming three times/wk vs. verticutting twice/yr), Primo Maxx (0 vs. 0.3 oz/1000 ft² biweekly), nitrogen (2 vs. 5 lbs/1000 ft²/yr), and fungicide treatment (0 vs. monthly preventative applications according to disease activity). Turf quality was assessed visually and by normalized difference vegetation index (NDVI). Turf firmness and ball roll were measured with a Clegg Soil Impact Tester (2.5 kg hammer Gmax) and Pelz meter, respectively.

Take Home Messages:

- ✓ Bi-weekly applications of Primo Maxx improved turf quality, ball roll, color, and reduced scalping.
- ✓ Primo Maxx decreased firmness of the turf.
- ✓ Verticutting twice annually gave better color, reduced scalping, and produced firmer turf. Ball roll was significantly better following the grooming treatment 3 times weekly.
- ✓ Mowing 6 times per week showed small but significant increases in color, firmness, ball roll, and reduced scalping when compared to 3 times per week.
- ✓ Overall, Primo Maxx, verticutting 2 times per year, and mowing 6 times weekly gave the most positive ratings and interactions during 2012 and 2013.
- ✓ Fungicide treatments prevented disease pressure from *Rhizoctonia* large patch (*Rhizoctonia solani* AG 2-2) in the winter of 2012-2013, but had minimal effects on quality or other ratings during the growing seasons of both years.

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Notes:

Kikuyugrass Management Study Field Map

