Stop #11: Optimal Management Practices for Kikuyugrass Quality and Playing Conditions

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A 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 ft^2 biweekly), nitrogen (2 vs. 5 lbs/1000 ft^2/yr), and fungicide treatment (0 vs. monthly preventative applications according to disease activity period). 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:

- ✓ The bi-weekly applications of Primo Maxx have improved turf quality, ball roll, and color. And it has reduced scalping injury.
- ✓ Primo Maxx decreases the firmness of the turf, possibly due to increased shoot density.
- ✓ Only two months of data are available so far where the Kikuyu plots have been subjected to the verticutting treatment. From those two months we can compare how a weekly grooming treatment stands up to a 2x/yr verticutting regime. We have found that, once turf has recovered, verticutting gave better color, turf quality, reduced scalping, and had higher tensile strength when compared to the grooming treatment.
- ✓ As far as combinations of treatments are concerned, the best results have been found with combinations of Primo Maxx, verticutting, and high mowing frequency. For example, the best turf color resulted from combinations of verticutting/mowing 6 times per week and Primo Maxx/verticutting. A similar pattern was seen with turf quality ratings and scalping ratings.

Notes: