Effects of Biomass Accumulation on the Playing Quality of a Kentucky Bluegrass Stabilizer System used for Sports Fields. (C05-sherratt082436-Poster)

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Abstract:

Since sand lacks cohesiveness, surface deterioration of sand based sports fields develops rapidly when the turf cannot recuperate between games. A stabilizer system comprised of natural grass and polypropylene fibers has been developed to minimize deterioration. However, accumulation of biomass above the stabilizer may form a discreet layer that causes the grass to shear off under intense sports traffic. A study was established in July 2000 at The Ohio State University, Columbus, OH to evaluate cultural practices that reduce biomass accumulation. The study examined the relationship between biomass accumulation and surface playing quality, through shear strength, surface hardness, ball rebound, wear tolerance, and turf quality. Biomass accumulation was determined by loss on ignition. Treatment measurements did not exceed the broad playing quality preferred/acceptable ranges. Total OM (g) did not vary among treatments, however, depth (mm) of OM was significantly different, implying that biomass was diluted with topdressing. Results to date suggest that verti-cutting significantly reduces biomass accumulation while maintaining playing quality.

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