Use of Recycled Foundry Sand and other Amendments in Sports Turf Root Zones. (C05-lindsay121429-Poster)

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Abstract:

Hundreds of thousands of tons of recycled foundry sand (RFS) are produced annually in Ohio. Since sand is a preferred ingredient in sports turf root zones, this study was initiated to investigate the beneficial use of RFS for this purpose. RFS has a medium fine texture with a high degree of uniformity and contains about 5 % bentonite clay. RFS was blended with N-Viro Soil, biosolids compost provided by the City of Columbus, yardwaste compost provided by Kurtz Bros. Inc., and a composted sand product provided by Garden Ridge Nursery, to achieve a 5% organic matter content. Unamended RFS and virgin sand were also included as treatments. The feedstocks and blended materials were sampled for pH, total P, K, Ca, Mg, N, and C, nitrate nitrogen, organic matter, soluble salts, and complete ICP elements. Field plots were constructed within 1.8 by 4.6 m wooden frames placed on a 1% sloped subgrade. Root zone depths were 15 and 30 cm, and drain spacing was 4.6 m for all treatments. The frames were filled with the various root zone treatments, firmed, raked, and seeded with a bluegrass mixture. Fall bluegrass establishment and preliminary hydraulic properties will be discussed.

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