Compost as an organic amendment for USGA rootzones. (C05-carey134855-Poster)

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Abstract:

Two composts were evaluated as organic amendments in comparison to standard peat in construction of USGA sand rootzones for turfgrass. The composts were Type AA composts (organic matter content >50%, minimal heavy metals, no pathogens, no inert contaminants). Composts were mixed 20:80 by volume with sand to produce typical USGA specification sand rootzone mixtures. A rootzone was constructed, with 12 sections, each 2 m x 3 m in dimension, with standard USGA construction. Plots were seeded (0.5 kg seed 100 m-2) with Cobra creeping bentgrass on July 20, 1998. Both compost amended rootzones significantly out-performed a standard 80:20 sand:peat mixture. Color, quality, uniformity and density were all better in the compost rootzones. Turf had significantly larger and deeper root systems, infiltration rate and volumetric water content were significantly higher and broadleaf weed infestation was significantly lower in the compost amended plots. Dollar spot infection was also lower, though not significantly so. Elemental analysis of the rootzone mixes indicated much higher levels of P and K, lower pH, and a higher CEC and total C content in the compost amended rootzones.

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