Turfgrass Revegetation at the New International Airport Construction Site on Reclaimed Land. (C05christians111756-Poster)

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Abstract:

The site of New Incheon International Airport, which has been constructing on 4,743ha of tidal land in S. Korea, was reclaimed with dredged sand near sea. Field experiment was conducted in 1996-98 for turf establishment. Plots were designed to test the 17 soil amendment methods and turfgrass species (3) Zoysia spp., 2 cool-season mixtures) with 3 subsurface tile drain spacing (22.5, 45, 90m). Installation of the blind drainage system did not affect salinity at root zone of 0-20cm surface and turfgrass growth. Dredged slime (saline-sodic soil) had a serious limit on vegetation. To control wind erosion and secure turf growth, topsoil application was required on the dredged sand soil. Turf coverage and visual quality were satisfactory with 5cm of loam topsoil with proper amendment, although 20cm topsoil showed most desirable result. Turf coverage of Zoysia spp. showed higher rate compare with coolseason mixtures under a low maintenance. Z. sinica showed a higher growth rate at early stage of reclamation, but Z. japonica proved to be the proper species after soil amendment. Maintenance should be more important practice than salinity control on the dredged sandy soil of the New Airport site.

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