

Athletic Field Systems Study

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The key to constructing a high quality athletic field lies in the choice of the root zone material. Traditional fields developed on native soil with high silt and clay content will provide excellent stability but drain poorly, and the quality of the playing surface quickly diminishes in unfavorable weather conditions and with heavy use. Sand root zones typically drain very well, but often times are unstable. Many newly constructed fields have failed because of this instability of the root zone. Since the instability of sand has been diagnosed as a problem, there have been many products developed to stabilize the sand root zone. For the purpose of our study, we have selected currently available products, which have been shown, to at least some degree, to provide stability while maintaining adequate drainage.

This study was constructed in the spring of 2000 and now enters its third year. The playing surface characteristics of 15 different athletic field systems are being evaluated through simulated football seasons. Two levels of traffic have been simulated: weekly (1X/week) simulating a game field situation and daily (5X/week) simulating a practice field situation. The parameters measured include percent turfgrass cover, traction, surface hardness, soil strength and infiltration rates. Preliminary results of these measurements will be discussed.

The treatments are listed below in no particular order:

1. Topdressing Sand (TDS 2150)
2. Tri-Turf Soils #28 Sand
3. Sand-Soil mix (7% silt + clay)
4. Sand-Soil mix (10% silt + clay)
5. Sand-Soil mix (17% silt + clay)
6. Turfgrids™
7. Ventway Stabilizers™
8. ZeoPro™
9. Profile™
10. ReFlex™ Mesh Elements
11. GrassMaster™
12. Hummer Supertiles™
13. Sportgrass™
14. Motz Grass™
15. Common Bermudagrass (10% silt + clay)