

## International Sports Turf Research Center

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### Summary of Oak Hill Country Club Aerification Test

May 29, 2003 core samples were taken from a green at Oak Hill Country Club.

We have completed the ISTRC SYSTEM™ Benchmarking of undistributed core samples taken from The Field Trial at Oak Hill Country Club: Control (No Treatment); DryJect & Sand; DryJect & Axis; Quadratine & Sand; 5/8" Hollow Coring & Axis, and 5/8" Hollow Coring & Sand. All sand installations were hand broomed into the aerification holes, which gives significantly better results than the conventional practice (i.e. dragging, matting, etc.).

This field trial was conducted to compare the physical properties using various aerification equipment. To minimize bias the labeling of each treatment & control were not provided until the testing was complete. Based on the current testing our observations are as follows:

**DryJect & Axis** showed the largest improvement in infiltration rates & air porosity (2.92 in./hr. & 11.95%) and substantially less compaction than the control.

**DryJect & Sand** was less compacted along with an average infiltration rate (1.75 in./hr.) that was 63% higher than the control.

**Quadratine Aerification** typically cannot achieve the same depth as the DryJect or 5/8" Coring. The lower infiltration rate & air porosity (1.27 in./hr. & 10.50%) may, in part, reflect the shallower aerification depth. No significant reduction in compaction, as measured by the bulk density.

**5/8" Hollow Coring & Axis** showed the second largest increase in the infiltration rate & air porosity (2.65 in./hr. & 11.04%) and less compaction than the control.

**5/8" Hollow Coring & Sand** showed a positive improvement in the infiltration rate & air porosity (1.64 in./hr. & 11.52%) and less compaction than the control.

<b>*Average Values*</b>	<b>DryJect Axis</b>	<b>Dry3ect Sand</b>	<b>Quadratine Sand</b>	<b>5/8" Coring Axis</b>	<b>5/8" Coring Sand</b>	<b>Control</b>
Infiltration Rate in./hr.	2.92	1.75	1.27	2.65	1.64	1.11
Air Capacity %	11.95	9.75	10.50	11.04	11.52	8.93
Compaction (Bulk Density g/cc)	1.31	1.35	1.38	1.32	1.38	1.39

There was no significant difference between the DryJect, 5/8" Hollow Coring, Quadratines, or Control regarding a reduction in the Organic Matter content.