

COMPARISON OF SEVERAL AERIFIERS

A comparison of several aerifiers was made in September. The study was done on two sites: one on a perennial rye grass turf growing on a heavy sandy loam soil at the Hancock Turfgrass Research Center and the other on a modified sandy loam student athletic field on campus at M.S.U., which is highly compacted. Aerifiers utilized in the study were those which could be gathered from several companies at the same time. Unfortunately, some commercially available units were not available at the time of the study so these could not be included in the study.

Data collected were limited because of extended rainfall after treatment. The amount of soil removed by hollow tine units is given in Table 10. As would be expected, the Verti-Drain unit removed the most soil because of depth of tine, spacing at 2.5 inches longitudinally and diameter of tine. The new Toro aerifier was also very effective. The Salsco unit is much smaller and naturally removes less soil. These data represent soil removed from a plot area of 4 square feet and 2 samples per plot.

Data were also collected on penetrometer readings to determine relative ability of the various units to loosen the surface soil. These data are still being analyzed. Other units included in the study were the Aer-Way and Verti-Drain solid tine aerifiers.

Table 10. Weight of soil removed from 4 square feet by aerifiers. Loam soil. Hancock Turfgrass Research Center. September, 1986. Averages of 4 replications and 2 measurements per replication.

<u>Aerifier</u>	<u>Dry soil wt.</u> grams
Verti-Drain, 2.5 inch	935 a
Verti-Drain, 4 inch	639 b
Toro	727 ab
Salsco	121 c
