

RAM 1 CULTIVATION STUDY 1992 RESULTS Initiated September 2, 1987.		
TREATMENT	DEPTH OF THATCH in centimeters	ORGANIC MATTER WEIGHT in grams
TORO 1X	3.5 a	4.6 a
TORO 2X	3.3 a	4.7 a
TORO 3X	3.2 a	4.8 a
CORE MASTER FULL	3.4 a	5.2 a
CORE MASTER SHALLOW	3.4 a	5.2 a
VERTI DRAIN HOLLOW	3.2 a	4.8 a
VERTI DRAIN SOLID	3.4 a	5.4 a
CHECK	3.5 a	5.4 a

Means followed by the same letter are not significantly different at the 5% level using the LSD mean separation test.

WETTING AGENT STUDIES

In 1991, we had a study on the effect of wetting agents on water use rates of bentgrass turf. There was some indication that wetting agent influenced the water use rate. A new study was initiated during summer, 1992. Wetting agents applied included Hydro Wet and Real Kleen at 8 and 16 ounces per 1000 sq. ft. on August 18. No differences in water use rate of the bentgrass was observed in during a period from August 20 through September 4.

ACKNOWLEDGEMENT

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HYDROJECT CULTIVATION AND INJECTION RESEARCH

While the ongoing research with the HydroJect is not supported by the Michigan Turfgrass Foundation, a brief report may be of interest to some members. Three studies will be reported here. The first was to evaluate the effect of HydroJect treatments on soil and turf conditions in Beal Gardens on campus. The Beal Gardens receive intensive traffic throughout the growing season and often have weak turf at the end of the summer. Two areas were studied: a native loam flood plain soil and the same soil modified by mixing in sand. The following treatments were applied every two weeks from the end of June to the end of August: 1 pass with the HydroJect; 2 passes; and an untreated check. There was no difference in turf quality ratings on the plots during the course of this study. However, the depth of holes from treatments was consistently deeper (40% in the native loam and over 60% in the modified soil) on plots receiving 2 passes compared to one. The holes in the native loam soil were about 40% deeper than in the sand modified soil, a result of the greater soil strength contributed by the sand grains. Surface hardness measurements taken with the Clegg impact tester showed that the treated plots had a consistently softer surface than the check. This is generally consistent with observations on other research plots evaluating the effects of the use of the HydroJect.

A second study was initiated in summer, 1991 on the practice putting green at Forest Akers East Golf Course on campus. This was continued in 1992. Treatments were 1 or 2 passes monthly with the HydroJect and a check. There were few differences in turf quality ratings. Generally, 2 passes with the HydroJect were needed to provide a consistently softer surface than was found on the check.

The HydroJect continues to prove effective for injecting phosphorus and potassium into the soil. In on-going studies, both nutrients can be found deeper in the soil on injected plots compared to surface applications at the same or even higher rates.

Studies on wetting agent injection with the HydroJect were conducted on a putting green at the Hancock Turfgrass Research Center. Because of the frequent rainfall during 1992 few differences were observed.