

OIL SPILLS ON QUALITY TURFGRASS - A NEW CLEAN-UP METHOD

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Introduction

Along with the advances in turfgrass maintenance technology, golf turf managers and other turf maintenance professionals have found themselves faced with a unique problem. Oil leaking from hydraulically driven turfgrass maintenance equipment can cause serious turfgrass injury to high quality playing surfaces. Turf injury from an oil spill might last for weeks up to many months. Turf damage is inevitable where hot hydraulic oil is dripped, spilled or sprayed. What we seek, is to minimize the severity and duration of this damage. Herein is described a new idea for cleanup of oil spills on highly maintained turfgrasses.

Discussion

Traditional cleanup methods have been some combination of activated charcoal applied to the spill followed by detergent washing and a water flush. This method should lead to faster turf recovery than if nothing is done to the spill, however none of the oil is physically removed from the site of the spill. The method under investigation is a technique that will actually remove the spilled oil from the turf as the first step in the cleanup procedure.

Certainly, the faster you begin any cleanup procedure and the greater the amount of oil removed the more you will reduce the damage done to the turf. With this in mind our study was designed to test the new method at different times after the spill took place. The treatments were made using hot hydraulic oil (122° to 143°F) at 15cc/3 foot stripe and 30cc/3 feet. Oil spills were treated immediately, 15, 30 and 60 minutes after the oil was applied using the new or traditional cleanup methods (Table 1). Certain plots were not cleaned at all, others received soap and water flush only. All plots were on Penncross creeping bentgrass and were treated on August 12, 1987.

TABLE 1.

<u>Treatment</u>	<u>Oil Rate</u>	<u>Time to Cleanup</u>	<u>Absorbent</u>	<u>Time of day</u>
T1	Low	None	None	A.M.
T2	Low	Immediate	Mat product	A.M.
T3	Low	15 minutes	Mat product	A.M.
T4	Low	30	Mat product	A.M.
T5	Low	60	Mat product	A.M.
T6	Low	30	Act. charcoal	A.M.
T7	High	None	None	A.M.
T8	High	Immediate	Mat product	A.M.
T9	High	15	Mat product	A.M.
T10	High	30	Mat product	A.M.
T11	High	60	Mat product	A.M.
T12	High	30	Act. charcoal	A.M.
T13	Low	None	None	P.M.
T14	Low	Immediate	Mat product	P.M.
T15	Low	15	Mat product	P.M.
T16	Low	30	Mat product	P.M.
T17	Low	60	Mat product	P.M.
T18	Low	30	Act. charcoal	P.M.
T19	High	None	None	P.M.
T20	High	Immediate	Mat product	P.M.
T21	High	15	Mat product	P.M.
T22	High	30	Mat product	P.M.
T23	High	60	Mat product	P.M.
T24	High	30	Act. charcoal	P.M.
T25	High	15	No absorbant flush only	P.M.
T26	High	60	No absorbant flush only	P.M.
T27	None	--	Absorbant and flush only	P.M.
T28	High	Immediate	Act. charcoal	P.M.