

RE-SODDING BUSINESS--THE MECHANICS

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Now that we have sold the American public a top quality sodded lawn, we need to sell the concept that a high quality lawn may not necessarily be permanent. The fact is that high quality lawns are a delicate biological system prone to the same problems of any other living system. When fully mature, lawns regenerate by tiller and rhizome growth. Older leaves, stems and roots continually die while tillers and "daughter" plants fill in void spaces. When a sod becomes mature, fewer places exist for young plants to develop and the average age of the plants in the lawn increases. When this happens, the lawn is more prone to problems.

Many homeowners have had a sodded lawn fail. While the tendency has been to blame the sod, it is more likely that the establishment procedures were faulty, or the lawn has received poor maintenance. Many times the lawn was sodded by the contractor in order to hasten the sale of the home. Very often, in these cases, the sod bed was poorly prepared if at all.

With the advent of the improved perennial ryegrasses, seeded lawns are gaining in popularity to replace deteriorated lawns. However, the perennial ryegrasses have a much higher likelihood of lawn disaster than the Kentucky bluegrasses. The ryegrasses are susceptible to many more potentially devastating diseases than Kentucky bluegrass, and occasionally will winter kill in Michigan.

The best alternative for the homeowner in rapidly replacing a quality lawn is to re-sod . . . and do it correctly to insure proper rooting.

A study was conducted at Michigan State University in the fall of 1978. Merion and Majestic Kentucky bluegrass sod squares were placed in re-rooting boxes having window screens fastened on the bottom. The study contained 4 replications. The irrigation treatments included daily watering of 1/4 inch and a deep soaking after the first sign of wilt. The tillage prior to sodding included: 1) a compacted soil, 2) compacted soil with surface 1/2 inch loosened, and 3) tilled to a depth of 6 inches. The sod pieces were mowed at 2 inches throughout the study. After 8 weeks, the sod pieces were lifted and the lift weight was recorded in Table 1. The amount of soil held by the roots was recorded in Table 2.

The results indicate that the re-rooting of the two varieties was very similar. Tilling the soil deeply improved rooting compared to compacted soil (Table 1).

The beneficial effect of irrigating only as needed to prevent wilt was very apparent on the compacted soils where rooting strength was significantly improved.

The amount of soil lifted by the roots (which gives an indication of rooting depth) was greatest in the deep till and where the sod pieces were irrigated only as needed (Table 2). The least amount of soil was retained on the compacted soils that were irrigated daily.

In summary, the data show that sod will root best in tilled soils that are irrigated heavy as needed when first sign of wilt appears.

A review then of the procedures in re-sodding deteriorated lawns include:

1. Allow deteriorated lawn to grow up to 4-6 inches.
2. Apply Round Up according to label directions.
3. Wait 3 to 6 days for adequate translocation of the chemical.
4. Till area to a 6 inch depth, remove debris.
5. Allow annual and perennial grassy weeds to germinate for up to 1 month while the old sod degrades.

6. Spray again with Round Up.
7. Wait 3 to 6 days for translocation.
8. Firm and smooth sod bed with a cultipacker.
9. Add sod bed fertilizer and lime if needed.
10. Prepare final grade.
11. Sod area according to normal sodding procedures.
12. Irrigate by soaking area thoroughly at the first sign of wilt along the edges of the sod pieces. Refrain from irrigating until wilt again appears. As rooting becomes deeper the irrigation interval will lengthen.

An alternative to this procedure would be to use a sod cutter to remove the old sod just after step 3. Then omit steps 5, 6, and 7.

Note that in order to get the most effective kill with Round Up, seeds and rhizomes must be growing green leaf tissue at the time of application.

Even though no guarantee can be made on the permanence of a re-sodded lawn, procedures must be followed that will insure the greatest longevity of a top quality lawn.

Table 1. The Effect of Soil Preparation and Irrigation on the Relative Lift Weight of Rerooted Sod Pieces

Cultivar	Irrigation	Tillage		
		compacted	surface till	deep till
Merion	Daily	57.3 a*	59.8 ab	67.5 bcd
	As needed	67.8 bcd	61.5 abc	66.5 bcd
Majestic	Daily	56.8 a	55.0 a	60.8 abc
	As needed	69.8 cd	61.0 abc	73.5 d

* Means with same letter are not significant at the 5% level according to Duncan's MRT.

Table 2. The Effect of Soil Preparation and Irrigation on the Pounds of Soil Retained by Rerooted Sod Pieces

Cultivar	Irrigation	Tillage		
		compacted	surface till	deep till
Merion	Daily	6.8 a*	8.3 ab	16.8 cde
	As needed	19.0 de	21.5 e	14.0 bcd
Majestic	Daily	7.3 a	8.3 ab	21.3 e
	As needed	12.0 abc	18.0 cde	17.3 cde

* Means with same letter are not significant at the 5% level according to Duncan's MRT.