THE ENERGY CRISIS AND THE SOD PRODUCTION INDUSTRY

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There are many uncertainties which are facing our country today as a result of the energy shortage. This is certainly true of the sod production industry as we attempt to consider the impact of such factors as fuel allotments, fertilizer shortages and rising costs, interest rates, new construction starts, seed production problems, limitations in transportation, and equipment and parts shortages.

One of the important costs in sod production is the regular mowing required to encourage development and maintenance of a good quality sod. A possible alternative might be to consider infrequent mowing. This would reduce the fuel and labor costs and would allow a "holding" action, if necessary. Limitations to this approach are the necessity of special equipment for mowing and harvesting the clippings, development of a means of handling and marketing the clippings, and the uncertainty of the time needed for sod recovery from the infrequent mowing effects. The last item can be determined with further research.

Results of the second year of a mowing frequency and nitrogen rate study are given in Table 1. The results are quite consistent with 1972 data. When only 30 pounds of nitrogen was applied per acre per month there was no difference between 4 to 8 week mowing intervals in effects on sod strengths. There was even a slight increase in sod strength over the more frequent mowing interval. The less frequent mowing intervals resulted in the highest clipping yields as well.

There was a marked reduction in turf quality immediately after the infrequent mowing but the turf appeared to recover with time. The amount of injury depended to some degree on the environmental conditions at the time of mowing. Greater injury occurred when the plots were mowed during periods of high temperature and high moisture stress.

Although the infrequent mowing practice is not being recommended presently it might be considered under special circumstances on a small scale basis. This may be one adjustment to consider in the future if the energy shortage has a marked effect on the sod industry.

Table 1. Effect of nitrogen rate and mowing frequency of Merion Kentucky bluegrass on 1973 clipping yields and sod strengths. Averages of 4 replications. Seeded Fall, 1972.

Mowing frequency	N Rate lbs/A/month	Dry Clipping Yields Tons/A	Sod Strength[1] lbs to tear
Twice weekly	30	1.2	89
	60	1.9	78
Weekly	30	1.3	86
	60	2.5	70
Every 2 weeks	30	1.6	91
	60	2.7	80
Every 4 weeks	30	1.8	107
	60	3.0	78
Every 6 weeks	30	2.0	104
	60	3.5	83
Every 8 weeks	30	2.4	97
	60	3.5	82
Every 12 weeks	30	2.5	69
	60	3.4	60

[1]Averages for August and October measurements.