

STOP 8

Dr. Fred Elliott

Turfgrass Improvement. The MSU turfgrass breeding program is concentrating on red fescue, ryegrass and tall fescue improvement. Most emphasis is being placed on the red fescues where improved leafspot resistance and rhizome development are seeded. Some of the promising new selections such as MSU-47-Fr, MSU-12-Lp, MSU-21-Lp, MSU-4-Fe, and MSU-5-Fe may be observed.

STOP 9

Dr. Kenyon Payne

Thatch Formation in Merion Management. A continuing long-term study of management factors involved in thatch formation. A management system is desired which will minimize thatch build-up and the associated disease problems. Factors under evaluation include height (1" vs 2"); clipping return vs. removal; mechanical thatch removal vs. none; and nitrogen rates compared in all possible combinations.

The amount of thatch removed by a vertical dethatching machine over a four year period is shown in Table 10. The thatch removed is greater at higher heights of cut or where clippings are returned. There is a decline in the amount of thatch removed as the turf ages.

TABLE 10. AMOUNT OF THATCH REMOVED OVER A FOUR YEAR PERIOD FROM FOUR MANAGEMENT COMBINATIONS

(7 x 21' plots in 3 reps; irrigated Merion)

Cutting Height	Clipping Treatment	Pounds per acre of thatch removed				
		1963	1964	1965	1966	Sum
1"	Removed	207	432	144	227	1010
1"	Returned	976	800	509	425	2710
2"	Removed	485	469	328	371	1653
2"	Returned	1138	766	538	548	2990

During 1966 and 1967 the turf quality of plots where the clippings are returned has been significantly lower than where clippings are removed. The return of clippings also reduces the turf density as shown in Table 11.

TABLE 11. 1966 DENSITY COUNT OF SELECTED TREATMENTS IN THE MERION THATCH STUDY

Clippings	Pounds of Nitrogen Per 1,000 sq. ft.		
	4	6	8
Returned	247	222	202
Removed	222	260	253