STOP 2

Dr. Paul Rieke

Soil mixtures and Relative Infiltration Rates - Soil mixes prepared in the laboratory are subjected to several treatments in order to determine the most appropriate mixture for a desirable putting green mixture. This soil would possess properties of rapid infiltration and drainage, reasonable water holding capacity, resistance to compaction, and ability to hold a well-played ball. Natural soil, sand and peat have been used as basic materials. Uniformity of source of these materials as well as their mixing are extremely important in obtaining consistent results in putting greens. The composition of a desirable mixture will vary with the size range of sands used, percentage of silt and clay plus kind of clay in the natural soil, and the kind of peat. Cores of soil mixes from the laboratory show the effects of increasing sand, soil, or peat on infiltration.

Soil cores from field plots established by Dr. Tyson on the Soils experimental farm indicate the effects of coarse sand, fine sand, fine sandy loam, and peat on growth and infiltration. Field data are being obtained from these plots.

STOP 3

Dr. Robert Lucas

Fertilizer Application Methods - Ammonium nitrate was applied June 25 at rates of 0, 1, 2, 4 and 6 pounds of nitrogen per 1,000 square feet on established Merion and common Kentucky bluegrass plots. 6' x 7 1/3' in size. Application methods were dry, dry followed by 1½ inches of water, and spray application. The spray was applied at the rate of 1/2 gallon per plot or about 500 gallons per acre. The first evaluations were made June 28.

Percent of leaves affected (burned) by fertilizer application. Observations were made 3 days after application.

N rate	Merion			Common		
	Dry	Watered	Spray	Dry	Watered	Spray
Check	0	0		0	0	
1	10	0	40	5	0	50
2	35	0	70	30	0	75
4	20	2	90	30	0	95
6	50	0	100	45	0	100

Stop 3 Continued

The spray applications resulted in a high percentage of burned leaves even at lower rates of application. This burning effect in most cases occurred on the tips of the leaves with healthy crowns remaining while the dry application without water showed crowns which were injured on some plants while other plants were unaffected.

Rates of soluble nitrogen up to 6 pounds were found to cause little or no burning if properly watered following application.

Note the rate of recovery on the various plots.

STOP 4

Dr. Carter Harrison

Turfgrass Mixtures - Eighteen grass mixtures in 5' x 9' plots. After three years, mixtures of bluegrass and red fescue continue to rank higher than bluegrass-red fescue mixtures containing perennial ryegrass. A small percentage of perennial ryegrass is still persisting to an objectionable degree. Mixtures containing redtop rank quite low in quality.

Percent by seed number					vs.	Percent by seed weight				
KB	RF	PR	TF	R		KB	RF	PR	TF	R
75	25					57	43			
50	50					21	79			
25	75					8	92			
33	33	33				8	29	63		
60	20	20				20	25	55		
20	60	20				5	55	40		
50			50			20			80	
33	33			33		19	73			8

KB - Kentucky bluegrass
RF - Red fescue
PR - Perennial Ryegrass
TF - Tall Fescue
R - Redtop