STOP 3

John King

Sod Heating. The heating of sod during shipment limits the distance that Michigan sod can be marketed and the number of loads that can be shipped to one customer at one time. The purpose of these investigations is (1) to describe the heating process in relation to management factors and (2) to compare methods of reducing the rate of sod heating in the load. In the summer of 1966, stacking procedures were studied. It was found that two by two foot sod pieces stacked 2.5 feet high gave a representative rate of heating. This summer the sod heating process is being studied using boxes 20 x 20 x 30 inches kept in a 75°F room. A recording potentiometer and an infrared gas analyzer are being used to measure and record the temperature, CO_2 and O_2 levels at various locations in the stack. The effect of nitrogen nutrition, watering rate, clipping height, fungicides, and respiration inhibitors are being studied.

STOP 4

Dr. Paul Rieke

Nitrogen and potassium fertilization on stress survival of turf. Nitrogen rates of 0, 4, 8, 12, and 16 and potassium rates of 0, 2, 4, 6, and 8 pounds per 1000 square feet per year were applied in all combinations. The treatments were initiated in 1965 on Common Kentucky bluegrass and Toronto creeping bentgrass.

Low temperature survival studies during the 1965-66 winter indicate that a balance is necessary between nitrogen and potassium for hardiness of common Kentucky bluegrass. Under these conditions maximum survival occurred when the ratio was 2 or 3 parts nitrogen to 1 part potassium even under the high nitrogen levels. These responses resulted in spite of available soil potassium tests of 356 pounds per acre as shown in Table (3), well above the level considered high for potassium. Because of the low temperature hardiness of Toronto bentgrass no effects of treatment were observed under low temperature stress.

TABLE 3. EFFECT OF RATE OF POTASSIUM APPLICATION ON AVAILABLE SOIL POTASSIUM TESTS

East Lansing, Michigan

K rate (lbs/1000 sq. ft./yr.)	Soil potassium tests (lbs/A) Spring, 1966	
	Bluegrass	Bentgrass
0	356	69
2	432	118
4	480	201
6	614	236
8	655	288