STOP 10

Dudley Smith

Turfgrass Weed Control. A turf tolerance study was established in 1964 to observe the effects of repeated applications of some crabgrass herbicides on desirable grass species. Nine granular herbicides have been applied both annually and biannually on established Merion, common Kentucky bluegrass and red fescue. Red fescue appeared to most susceptable to injury by the nine herbicides tested while Merion showed the least injury. Severe injury was observed in common Kentucky bluegrass where Betasan was applied annually.

After selection of the proper herbicide for the job required, proper herbicide applicators and sprayer calibration is of major importance. Turf injury or poor weed control may result if equipment is not carefully calibrated prior to actual use.

STOP 11

Dr. Robert Lucas

Nitrogen Fertilization Investigations. The nitrogen fertilizer requirements of two red fescues (Pennlawn and MSU Selection) and three Kentucky bluegrasses (Common, Delta, and Windsor) are being compared. Plots were established September 9, 1966. Nitrogen is being applied, as ammonium nitrate, at rates of 0, 1, 1 1/2, 2, 2 1/2, 3, 4 and 6 pounds annually per 1000 square feet. Rates on red fescue are 2, 4, 6, and 8 pounds. Nitrogen is applied monthly; 20% each on April 15, May 15, August 15, and September 15; 10% each on June 15 and July 15.

Merion bluegrass was seeded September 29, 1965. Adjacent plots were sodded with Merion bluegrass June 15, 1966. Monthly nitrogen applications were initiated April 15 at annual rates up to 14 pounds per 1000 square feet. Spring versus fall nitrogen applications are being compared on seeded Merion plots.

Few conclusions can be made at this time, but there is a progressive response to nitrogen with the highest rates of application showing the fastest growth and the highest quality turf. No disease had appeared previous to July 1.

These studies will further substantiate the current nitrogen recommendations for turfgrasses in Michigan as shown in Table 12.

TABLE 12. ANNUAL NITROGEN REQUIREMENTS FOR MICHIGAN TURFGRASSES

Species of Grass	Pounds of Nitrogen	
	Per 1000 Sq. Ft.	Per Acre
Merion bluegrass	6 - 8	260 - 350
Bentgrasses		
Common Kentucky bluegrasses	2 - 4	85 - 175
Red fescues	1 - 3	40 - 130