

## Effect of Nitrogen Rates and Carriers on Thatch Reduction

J. M. Vargas, Jr., Lee Berndt and Ron Detweiler  
Botany and Plant Pathology

### 1989 Nitrogen-Thatch Study

The original study was conducted during the 1989 season on Touchdown Kentucky bluegrass mowed at 2 inches three times a week and irrigated as necessary to prevent wilt. The fertilizers used in the study were Andersons experimentals (2 formulations), Lawn Restore, and Urea. They were applied monthly beginning in May at 2, 4, and 8 lbs of actual nitrogen per 1000 sq. ft. per month. The study showed all rates of nitrogen and carriers used significantly reduced thatch. This is contrary to popular belief which suggests that high rates of nitrogen lead to an increase in thatch. The 4 and 8 lb rates of urea, however, caused unacceptable injury to the turf. No additional treatments were applied to any of these plots in the 1990 season. The treatments will be examined prior to the 1990 field day to determine the long term effects of the treatments on thatch reduction.

### 1990 Nitrogen-Thatch Study

The 1990 study was initiated on July 20 with a second application being made approximately 30 days later. The nitrogen carriers used in the study were:

Urea (46-0-0)  
IBDU (31-0-0)  
Rejuvenate (9-3-6)  
Lawn Restore (9-4-4)  
Ammonium Sulfate (21-0-0)

The carriers were applied at rates of 2, 4, 6, and 8 lbs of actual nitrogen/1000 sq. ft. The plots will be examined just prior to field day.