THE INFLUENCE OF LESPEDEZA AND FERTILIZER TREATMENT ON THE BEHAVIOR OF DALLIS GRASS, CARPET GRASS, AND BERMUDA GRASS

R. L. Lovvorn

DALLIS grass, Paspalum dilatatum Poir., carpet grass, Axonopus affinis Chase, and Bermuda grass, Cynodon dactylon (L.) Pers., are the three most important permanent pasture grasses of the Coastal Plain of North Carolina. Even though farmers have observed that carpet grass is not entirely satisfactory for grazing, some states in the Coastal Plain of the southeastern United States have continued to recommend it. Studies in the lower Coastal Plain of North Carolina have shown that Dallis grass is more responsive to nitrogen fertilization than carpet grass. Most carpet grass pastures in the state have a small legume population. Additional information is needed on the ability of various legumes to grow in association with these grasses and on the effects of different fertilizer treatments on the yield and botanical composition. The studies herein reported were designed to measure the seasonal and total yields of three important southern pasture grasses with and without legumes and to follow the population changes from year to year under different fertilizer treatments.

METHODS

The study was begun in the spring of 1937 on a Norfolk fine sandy loam soil and continued through 1942. This soil type is well drained and occupies an extensive area of the upper Coastal Plain. The original pH value was approx...