



MISSISSIPPI STATE UNIVERSITY SALT STUDY

This study was undertaken to examine the properties of Higromite Soil Amendments for use in golf courses to improve water relations and determine how it would react with irrigation water that is fairly high in salts. Higromite improved water holding capacity compared with other amendments, when blended with sand at 10% by volume. Seashore Paspalum was established on six inch pots mixed with pure sand (control), 10% Higromite and 10% zeolite. After one month of growing the pots were broken up into four treatment groups. The treatment groups consisted of tap water plants maintained at field capacity (no stress), tap water plants watered when they showed drought stress, salt water (100 ppm Na) plants watered to field capacity, and salt water plants watered when plants showed signs of stress. After three months of growth in six inch pots in the greenhouse the pots were dismantled to examine root growth and to analyze the soil from the pots to determine salt content.

Conclusions: "The Higromite maintains a significant cation exchange capacity but does not appear to preferentially sequester sodium. Preliminary data indicate that sand amended with Higromite holds 25% more water at field capacity than unamended sand. In the field these irrigation intervals equate to watering every three days in a pure sand based root zone and four to five days for sand amended with Higromite, which represents a significant reduction. The incorporation of Higromite into sand based rootzones and irrigated with 1000 ppm salts (as NaCl) produced no negative results."