

### “Effects of *calcium actosol*® on Root and Turf Growth Under High Salinity Conditions on Beach Area” Symsi Manuel, April, 2008

In the spring of 2008 a test was conducted to evaluate the use of *calcium actosol* on one entertainment beach area. The objective was to demonstrate that *calcium actosol* could improve turf performance on highly compacted soils and improve Bermuda grass turf.

Application of *calcium actosol* at the rate of 3 gallons per 60 gallons of water was used to cover the turf area. The first application was made with a hand held power sprayer and then the second application was applied with a bloom sprayer. Application was made to the left of the stage and in front of the stage (approximately 8-10 feet).

Soil sample was taken at the beach entertainment area to evaluate the effectiveness of chelating of nutrients, organic matter, and quality of the turf.

#### RESULT:

Evaluation of the turf was made after two months. Turf quality was noted to be significantly better with the two applications of *actosol* vs. no *actosol*. Root development both in quantity and length showed significantly better in the *actosol* treatment. No visible green growth (turf) was present in the control. Based on these observations, *actosol* improved turf quality, reduced compactness, and improved stress tolerance which is a function of root development.

Soil analysis indicated there was an increase of organic matter and also better retention of nutrients. This would also explain that *actosol* increases chelating ability of nutrients held in the soil thus improves stress tolerance and root development. Lastly, it was noted that the *actosol* reduced sodium levels in the soil.



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## SOIL ANALYSIS FOR VIRGINIA BEACH, FL

	4/28/2008	7/3/2008	
	Wo/actosol	w/actosol	wo/actosol
ORGANIC MATTER	4.4	5.4	4.3
Phosphorous	280 ppm	265 ppm	225 ppm
Potassium	252 ppm	240 ppm	190 ppm
Magnesium	150 ppm	135 ppm	86 ppm
Calcium	1120 ppm	1050 ppm	975 ppm
CEC	9	14	4
FE	207 ppm	252 ppm	180 ppm
MN	17 ppm	26 ppm	12 ppm
pH	5.9	6.0	5.8