

# Monitoring Soil Salinity in Dubai

## Objectives:

Study the dynamics of salt in the root zone of the following forage species:

- *Distichlis spicata*
- *Sporobolus virginicus*

These species are salt excluders.

## Methods:

Three levels of saline irrigation water were applied (10, 20 and 30 dS m<sup>-1</sup>).

Pre-calibrated salinity sensors were buried at 30 and 60 cm depth and connected to a digital data logging system.

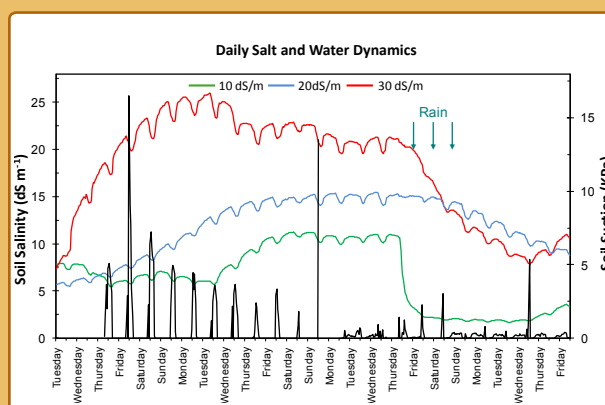
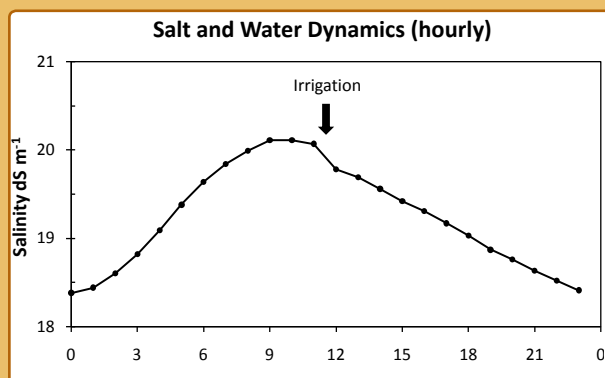


## Conclusions:

1. Monitoring soil salinity avoids salt build up in the root zone.
2. Soil salinity changes dynamically within the irrigation cycle.
3. Understanding soil salinity allows precise management and scheduling of the irrigation system.

## Results:

1. Adequate irrigation volume maintained the salt concentration in the soil within the threshold of the planted species.
2. Diurnal changes in soil salinity from irrigation were measured.
3. A large irrigation effectively leached salt from the root zone.



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