نزرع للغـد
# ICBA
AGRICULTURE FOR TOMORROW

# New Irrigation Management Technologies at ICBA

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## Intellectual Soil Irrigation System (IRIS)

### Objectives

The general goal is to compare between IRIS soil tension based system, ETo based method (used in ICBA) in terms of agronomic performance of maize and irrigation water supply.
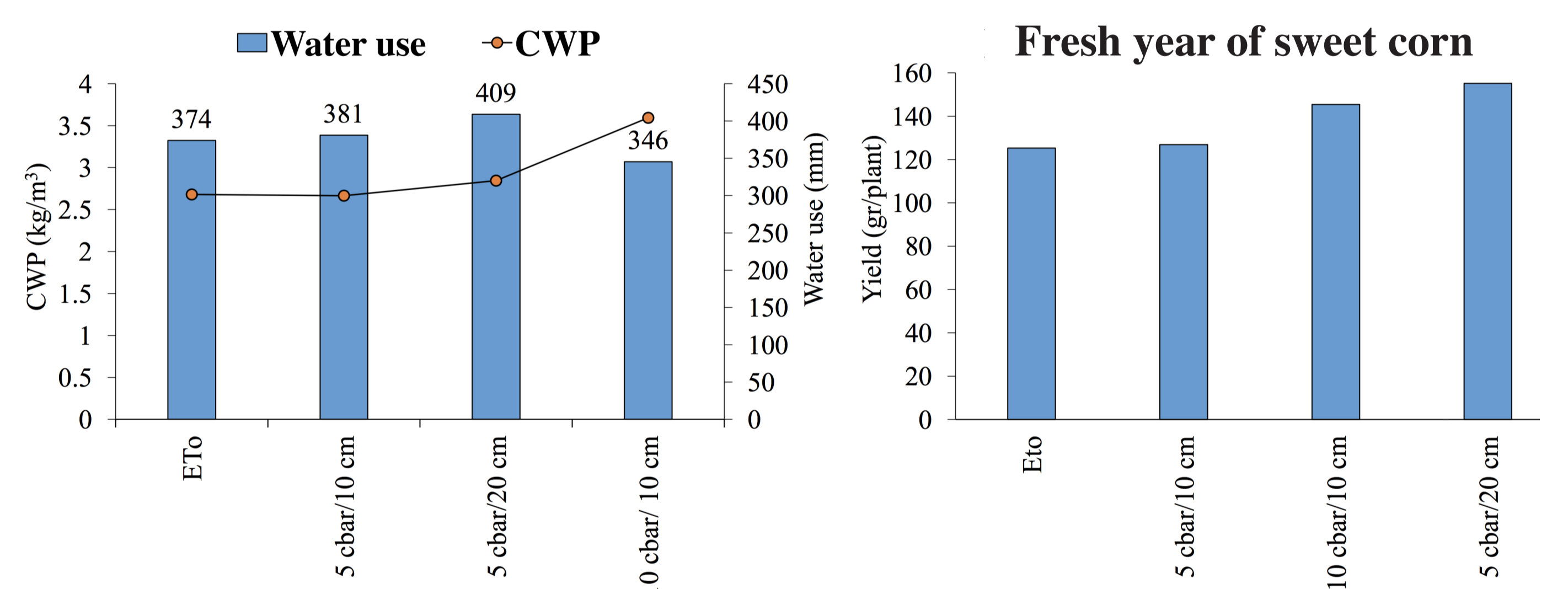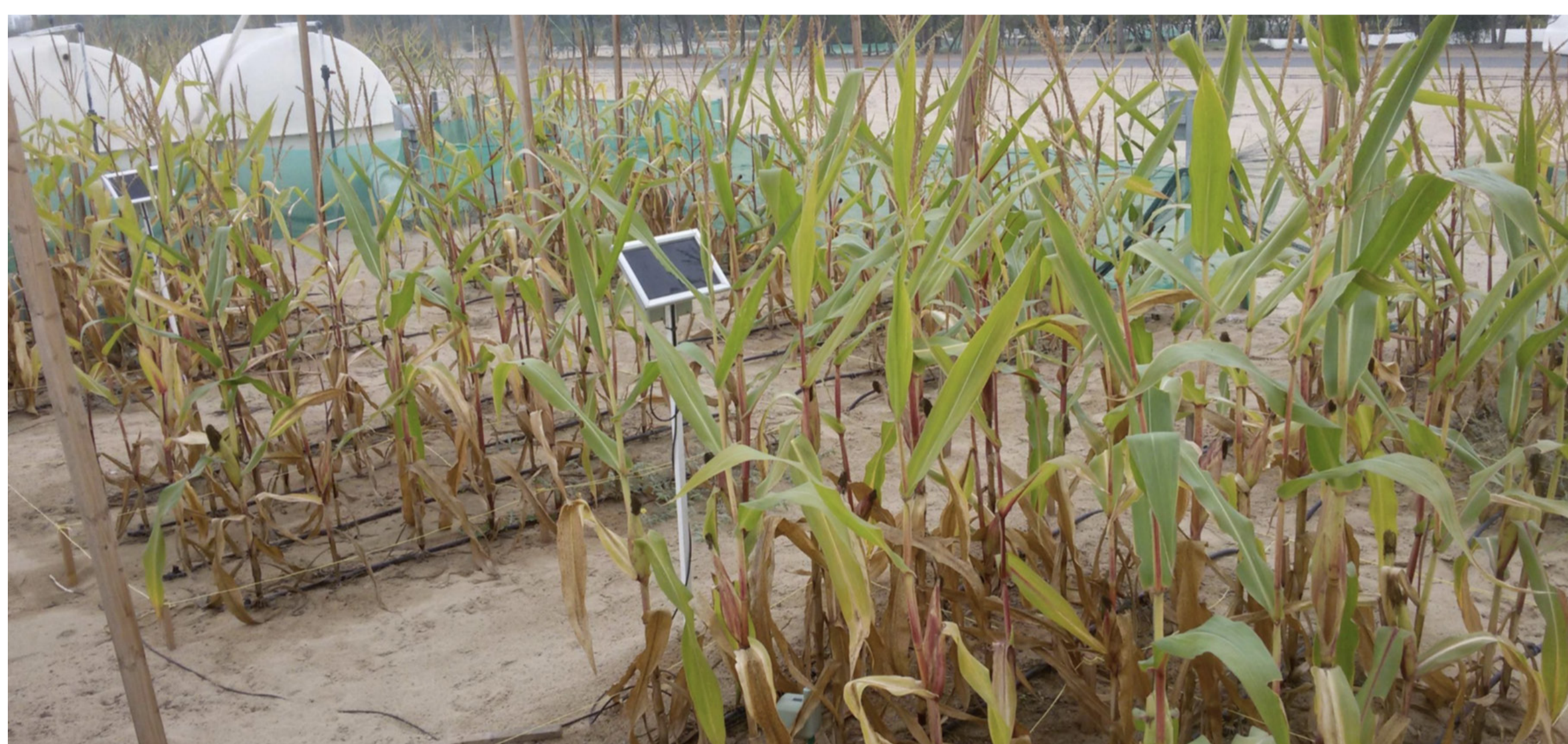
### The project aims to:

- Test the IRIS system in the local conditions of UAE
- Evaluate the impact of irrigation using IRIS, ETo based method on crop productivity and water use



### Partners

- International Center for Biosaline Agriculture, Dubai, UAE

- Global Green Industries LLP, Almaty, Republic of Kazakhstan Evolve Growing Solutions, Nottingham, UK





## Using Canopy Spectral Reflectance in Precision Irrigation Management Under Arid Conditions

### Objectives

This research aims to use canopy spectral reflectance in irrigation management under arid conditions. The specific objectives are:

To assess the variation in canopy reflectance as responses to water deficit and salinity stress

- To develop a new innovative method of irrigation scheduling using reflectance sensing based on regression models between reflectance indices, soil moisture, salinity, growth and productivity parameters.

- To determine water requirement, leaf area index, biomass production and growth stagesaccording to water and salinity stress.

- To develop a guideline for using canopy spectral reflectance as an irrigation tool