## **Tool: IrriWatch irrigation advisory**

Applications for irrigation and farm management

### Background

IrriWatch provides <u>daily irrigation</u> <u>scheduling advice</u> based on remote sensing. The data is field specific and updated daily on the basis of recurrent satellite measurements. The IrriWatch data system provides <u>10 x 10 m</u> soil moisture in the root zone, along with, water requirement, crop production and other parameters.





#### Challenges

A sugar beet pivot farm is Wadi Al Natroun was part of the field schools during this project. IrriWatch advisory was provided since planting. The first challenge was to **compare different varieties** especially in terms of crop production and growth. The second challenge was related to **optimizing irrigation** and irrigation distribution uniformity. The third challenge was the difference in **elevation** within the pivots leading to non-uniformity of irrigation.

#### Results

Using the IrriWatch App, the team was able to monitor daily progress of the different varieties and crop production allowing them to choose the **suitable variety** to plant next year. The farm manager was able to take informed decisions related to irrigation, such as adjusting the **speed of the pivot**, using the soil moisture status and irrigation requirements. Monitoring via IrriWatch helped identify locations with different elevation and **improve land preparation** next year.



## **Practical application**

IrriWatch data system provides on daily basis useful information for farm management that helps farmers to take **precise decisions** for a climate smart agriculture. Practical applications of IrriWatch include among others:

- <u>Irrigation Management:</u> optimized irrigation based on actual ET, daily monitoring, optimized water applications;
- <u>Crop Health Management:</u> reducing non-uniformity, timely detection of crop diseases, cost effectiveness and nutrient optimization
- <u>Crop yield monitoring</u>: daily monitoring of growth, varieties comparisons for crop production and crop yield prediction

December, 2021

# Project: A Practical Farmers' Toolkit

Geodata for climate smart agriculture in Egypt



The Farmers Toolkit as presented in this project contains various geodata tools applicable for farmers to assist their decisionmaking and adopt <u>climate smart</u> <u>agricultural practices</u>. This project launches a training program on these tools:

- Flying Sensors
- IrriWatch Irrigation Advisory
- WaPOR Portal and Apps
- Climate Risk Assessments

The training providers consortium are tailoring the activities towards the requirements of the selected beneficiaries which are private companies, consultants, and NGO's, all active as <u>extension</u> <u>officers</u> in the agricultural sector of Egypt. The training program is a unique combination of face-to-face training, online teaching, and field schools conducted throughout the growing season of 2021.



Watch the project video https://youtu.be/aKE1dPGIqgg

