IrriSAT – weather based scheduling and benchmarking technology

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What is it?

IrriSAT is a weather based irrigation scheduling and crop benchmarking tool that uses remote sensing to provide site specific crop management information across large scales at relatively low cost.

How does it work?

Satellite images used to determine plant performance of irrigators crop

ET_0 from local Weather Stations

Determination of a crop coefficient (Kc) from satellite image

Representing individual paddocks

ETc = ETo x Kc

IrriSAT

Daily updates site specific Kc, ETc and scheduling information

Uses of IrriSAT

1) Determine seasonal and daily crop water use (Figure 1).

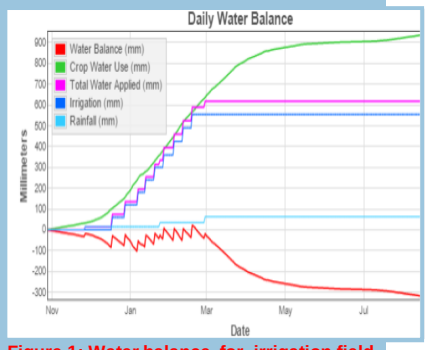

Figure 1: Water balance for irrigation field

2) Forecast daily crop water use. IrriSAT predicts crop water use for the coming seven days (Figure 2).

Figure 2: Seven day ETc forecast

3) Examine spatial variability in Kc and ETc across a field or multiple fields over a region (Figure 3).

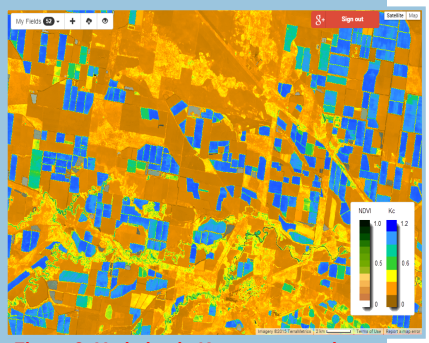

Figure 3: Variation in Kc across a region

4) Benchmark Crop Water Use across a farm and region (Figure 4).

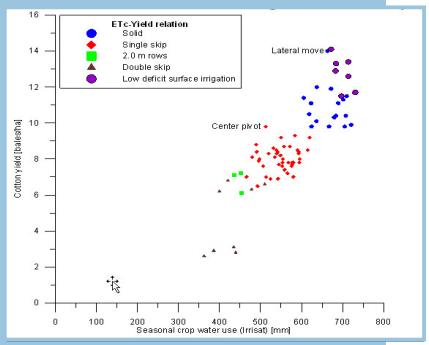

Figure 4: Benchmarking crop productivity

https://irrisat-cloud.appspot.com

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The IrriSAT project team

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