

# The Irrigation advisory systems and information and communication technologies

ARGENTINA, NICARAGUA, URUGUAY, SPAIN, NETHERLANDS, HOLANDA



Webstory



## Technological solution

The water balance of crops in real time, using various sources and platforms, will provide answers to decision-making on irrigation scheduling. The innovations will be adapted to the particularities of family agriculture.



## Technological description

The general objective of the project is to generate a study to identify how to reduce the yield gap of selected crops, by using irrigation schedules adjusted to the water requirements.



## Impacts and results

The main result of the project is the development of the Irrigation Advisory Service (SAR) platform, which provides an answer to the two basic questions of irrigation scheduling: *when and how much to irrigate?* The SAR shows, graphically and numerically, the soil water availability. When the soil water content falls below a threshold (which mainly depends on the crop and the soil type), the irrigation alert is given. The SAR has been tested on alfalfa, cotton, strawberry, tomato, pepper and bean. Preliminary results show that adjusted irrigation schedules significantly increases crop yields: alfalfa 33%, cotton 67%, pepper 65%, strawberry 52%, beans 22% and tomato 62%. Complementary results of the project are: a) strengthening agrometeorological information networks through the installation of 6 automatic weather stations, 5 having online access; b) the use of satellite images for soil moisture estimation through algorithms, using predictor variables, such as bulk density and texture of soil, and spectral indices; c) the bases for scaling up the project were established and its results were communicated through reports, workshops, meetings and seminars.



**5040**

Area of influence of the project (hectares)



**1550**

Potential number of beneficiaries



**45**

Crops yield increase (%)



**29**

Knowledge products



**53**

Meetings with farmers



**4**

International workshops and seminars

## MAIN DONORS



## PARTICIPATING ORGANIZATIONS

