# Efficient irrigation in potato crop using remote sensing information.

CHILE / ARGENTINA / COLOMBIA / SPAIN / URUGUAY













## The technological solution

The monitoring of the development of the potato crop using the satellite vegetation index NDVI allowed to establish a useful crop coefficient to implement the FAO 56 methodology.



## **Description**

The ability of satellite images to carry out frequent monitoring of the crop allows the routine implementation of the methodology known as FAO 56 which, together with the environmental demand of the site, allowed to precisely establish the water consumption of the crop and reach a high productive levels.



#### **Results**

The pilot was developed in the Coquimbo region, with an arid climate and environmental demand (ETo) of 437 mm during the development of the crop, which varied between 1.5 to 5.9 mm per day. The meteorological data were accessed from the public network agrometeorologia.cl. Crop monitoring was performed with the NDVI vegetation index available at https://www.agrisatwebgis.com/app/agrisat/map. Irrigation was provided with drip tapes and soil water availability was monitored with capacitance probes. Based on the implemented methodology, the volume of irrigation provided was 3,416 m3/ha (in traditional management 4,500 m3/ha) and the yield was 57 Ton/ha (28 Ton/ha regional average), which represents an effective saving of water. and high performance, increasing water productivity (WP) from 5.5 Kg/m3 of the traditional system to 16.5 Kg/m3 with the proposed methodology.

+100 %

Water efficiency

atallita Agu

Satellite Agricultural Platform PLAS FONTAGRO

+5

Technological pilot

**+6** 

**Precision irrigation** 

+20

Professional training sessions

+6

Regional water











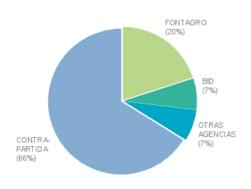


#### **ABOUT FONTAGRO**

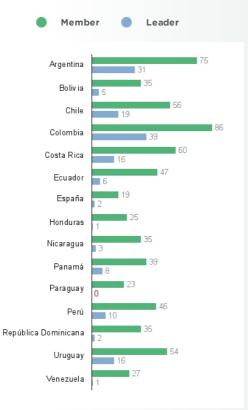
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PARTICIPATION AND ROLE IN CONSORTIUMS SINCE 1998



- Counterpart contribution 93.177.555
- **FONTAGRO** 28.989.468
- IDB 9.922.700
- Other agencies 9.809.078



Number of projects 193 approved

amount US\$

9.8

other agencies

15

New technologies for ALC

8

Technology of global relevance

MEMBER COUNTRIES

