

# GETTING DAILY WATER IRRIGATION RECOMMENDATIONS DIRECT TO FARMERS

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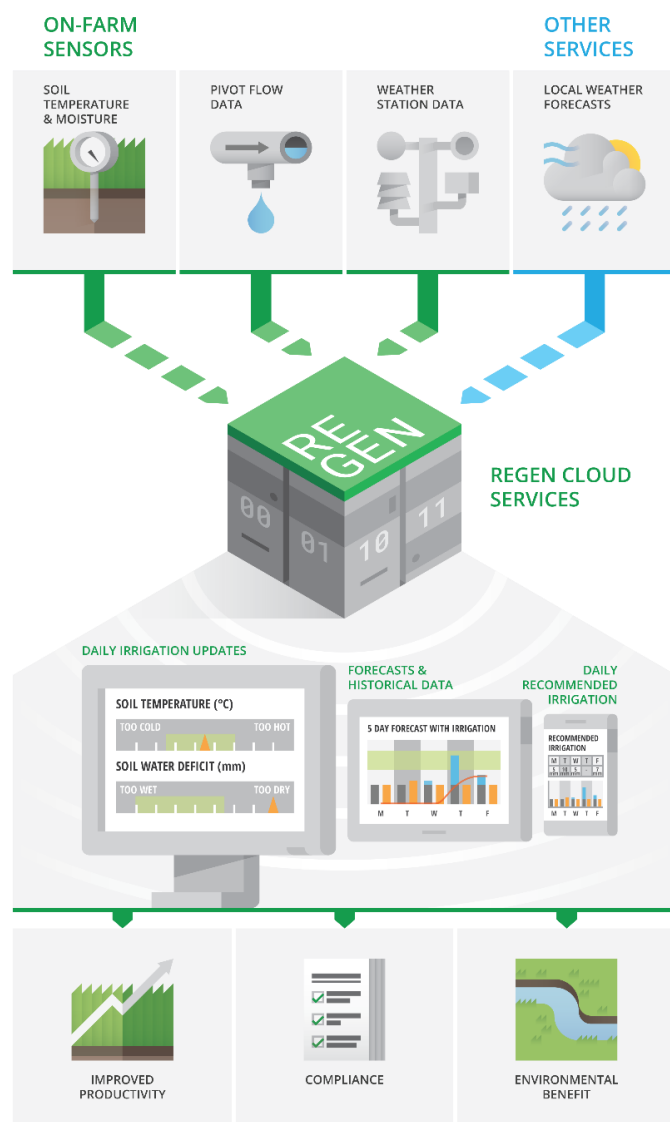
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Smart tools enable farmers to operate at best practice, and to report on their actions. Regen Water is a smart tool to get daily water irrigation recommendations direct to the farmer. It is an automated, cloud-based service that uses sensor data, weather forecasts and predictive models to put best practice daily water irrigation scheduling in farmers' hands via a mobile application. In addition to daily recommendations, all irrigation actions carried out and soil conditions are continuously recorded and available for regulatory reporting.

Best practice irrigation management is essential to ensure the maximum benefit can accrue from irrigation while at the same time minimising the negative environmental impacts. For an irrigator to apply best practice irrigation management every day they need to have at hand a wide array of knowledge about their soil type, irrigation system and crop requirements along with up-to-date information on the current soil water deficit and the forecast weather. All of this information then must be processed through to establish if irrigation is required and to what depth. The Regen Water service does exactly this for the irrigator.

To deliver the service Regen utilises on-farm sensors to automatically and constantly measure variables of interest, telemetry to capture the data, the cellphone network to transmit the data, the cloud to store the data. Once in the cloud the Regen application uses modern software tools to run sophisticated processing algorithms which transform the raw sensor data into useful information. The resultant information is then displayed in easy



to interpret visual format via a mobile application and a desktop view. As the data and the processed information is all securely stored in the cloud it is accessible to authorised users from any location with an internet location.

Consent conditions attached to water irrigation are continuing to evolve and require a greater and greater level of detailed recording. The Regen Water service collects all the required information in the process of providing the daily recommendation, so not only is the irrigator able to operate best practice they are ideally placed to provide auditable evidence of this when required.

The outcomes for the farmer of best practice irrigation are;

- Improved pasture production

Avoiding over irrigation and maintaining soil moisture in the optimum level for growth leads to improved pasture growth.

- Environmental benefits

Reduced irrigation leads to reduced nitrogen leached. More of the nitrogen in the soil is available for pasture growth and the overall leaching from the irrigated area is reduced.

- Economic benefits

Reduced irrigation leads to savings in power, a direct gain for the farmer.