

Why

The long periods of drought in the summers of 2018, 2019, 2020 and 2022 show that irrigating certain crops in Flanders will become increasingly necessary. Smart management of water resources is therefore crucial in some regions and farms.

What

PSKW offers customized irrigation advice. The advice is based on a model that calculates the amount of plant available soil moisture in the root zone. This calculation relies on local data and measurements. For example: data from a nearby meteorological station are used to calculate crop evapotranspiration, and soil samples are taken at the start of the season to establish the soil water retention curve. That curve is important to determine thresholds for the soil (irrigation threshold, field capacity). At locations where the groundwater level is shallow ($\leq 2\text{m}$ below surface), the supply of moisture via capillary uprise is also relevant. Groundwater can be measured via a monitoring well to help quantify that supply. The advice is accessible on a platform, which is updated daily. The grower can see for each cropping how much he needs to irrigate by which date. The calculations are made automatically with the latest available information (weather data, moisture samples, irrigation rates,...).

How

Construction

To start the irrigation advisory, contact the Vegetable Experimentation Station. They then provide access to the platform where the advice from your plots will end up. Behind it they link the calculations to a meteorological station in the neighborhood. They can also do the follow-up by means of soil samples and level measurements every 2 to 3 weeks. Irrigation rates have to be entered by the user.

Maintenance

Follow-up of the irrigation advice is done through the platform. The user himself must complete the applied irrigation rates in the platform in l/m^2 to obtain the correct advice. If a control system registers it, there is the possibility of linking the control of the taps to the advice, automatically forwarding the registered amounts to the platform.

Benefits

Ecological

Efficient use of available water.

Useful links

- [Additional info platform irrigation advice](#)
- [Irrigation platform Trial Station for Vegetable Production.](#)

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Examples

Discover some examples of this measure at <https://www.lifeaclima.eu>

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