



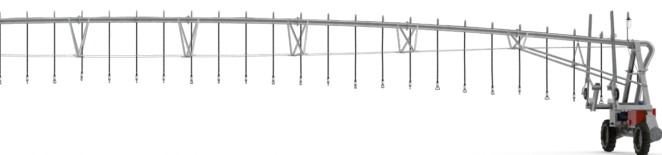
LET'S LOOK AT THE FACTS

The current **climate crisis** is causing **extreme fluctuations** in **precipitation**, alternating between periods of **severe drought** and **torrential rainfall**.

Not only: air temperatures have increased, as has plant evapotranspiration.

The result? There is less **water available** for crops, while **irrigation needs** are rising.

This is the reason why **irrigation water** is becoming an increasingly valuable **resource**: our goal is to **promote** and **encourage** its **efficient** and **conscious** use.



DO YOU KNOW HOW?

We are here to introduce you to **IRRIFRAME**, the **Expert System** for soil-plant-atmosphere **water balance** owned by ANBI and developed by CER, which employs different kinds of data, such as: **climate**, **soil**, **groundwater**, farm irrigation system, and irrigation district. This is to provide you, the farmer, with all the necessary information for **efficient water use**.

How does it work? By identifying the **ideal timing** for irrigation and the correct **irrigation volume**.

The system is active in Italy and has recently been updated with features that incorporate monitoring data from field sensors, satellites, and automated irrigation systems.



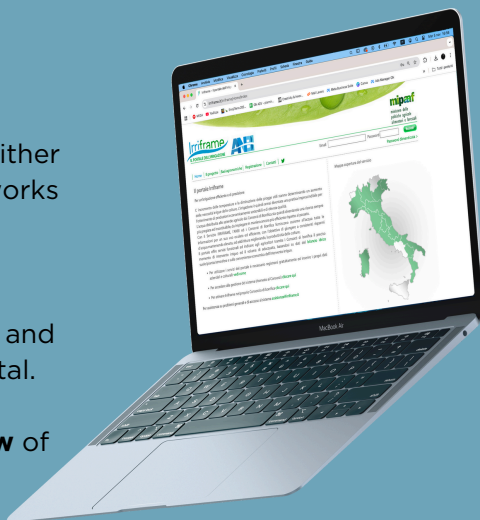
If you already think this tool sounds useful, there is even more: this tool is not only **simple** and **intuitive**, as we will show you in a **tutorial**, but it's also **completely free** and **at your fingertips**: You can access it directly **from your smartphone**!

HOW THE PORTAL WORKS

IRRIFRAME is powered by a **water balance model**, with data collected either automatically via GIS (or sensor networks integrated from other platforms) or manually provided by the user.

All you need to do is **input your field** and the required information into the portal. This data will feed the water balance engine, providing a **detailed overview** of the situation through simulations of:

- **Water dynamics** in the soil
- **Crop growth** and root system development
- **Evapotranspiration**
- **Groundwater** contribution and depth (calculated automatically or entered manually)



After calculating the water balance for the soil-plant-atmosphere system, the tool will provide you with an **estimate** of the optimal irrigation volume.

A **threshold system** determines the minimum and maximum water levels available, enabling farmers to achieve **maximum potential production**.

These **thresholds** vary based on the crop, phenological stage, and type of irrigation system. They are **calculated daily**, using linear interpolation between initial and final values to avoid abrupt changes.

We know you are probably imagining a complicated tool, **but we are here to show you that it is not!**

The portal takes care of the calculations; all you need to do is simply **“register”** your field and the irrigations performed.

The **procedure** is fully **guided** and absolutely **intuitive**, and we're about to prove it:

Scan the QR Code below for a demonstration!

