

METOS[®]

 **Pessl**
INSTRUMENTS



Plant Monitoring - Yara Water Sensor

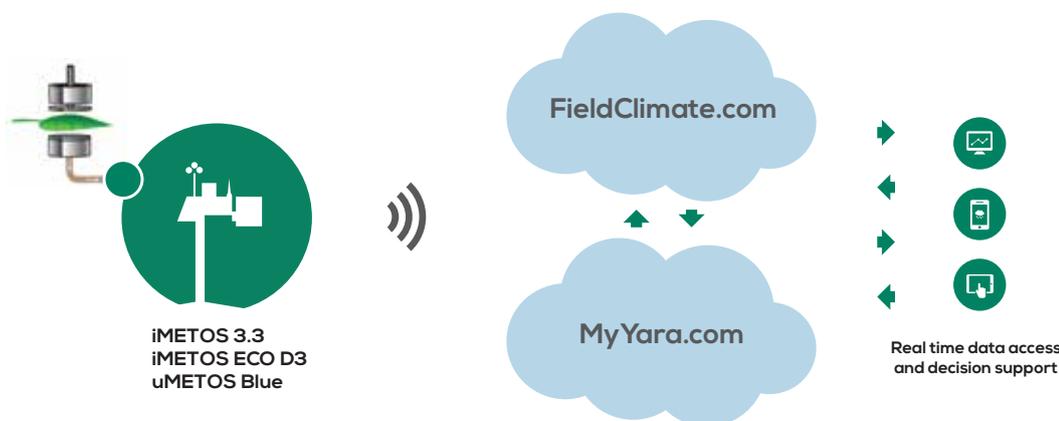
Yara Water-Sensor

The Yara Water-Sensor measures changes in the leaf's turgor pressure of the plant. As the turgor pressure is the driving force for plant growth and fruit production, proper water management is key.

- Plant-based, continuous and non-destructive measurement of plant water status
- Online data transmission and web-based access via MyYara
- Automatic, validated crop-specific irrigation-recommendation in combination with MegaLab from Yara with nutrition advice

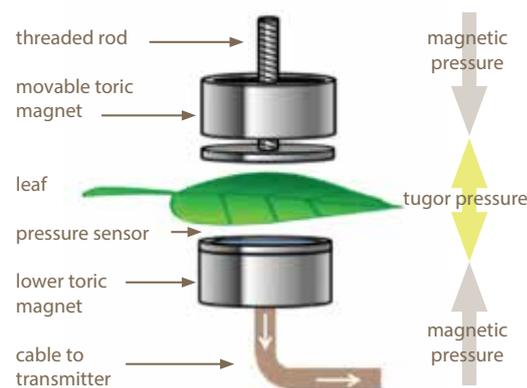


How Does it Work?



The Yara Water-Sensor is integrated into the existing hardware platform of Pessl Instruments. The Yara Water-Sensor data together with the weather and soil data are sent wirelessly via Pessl Instruments proprietary radio network and their API to the MyYara platform. The combined Pessl Instruments-Yara solution offers real-time weather monitoring, soil-moisture and leaf turgor pressure measurements. Farmers can access real-time recommendations for irrigation, historical information of evapotranspiration and weather forecast displayed through online platforms "FieldClimate" and "MyYara".

The turgor pressure in the leaf patch is opposed to the magnetic pressure, which is kept constant during the measurements. The Yara Water-Sensor measures the difference between magnetic pressure and turgor. Turgor pressure is the pressure caused by fluid pushing against the cell wall of plant cells. It is needed to keep the plant's rigidity, to stand straight and continue normal cellular functions. As the turgor pressure is the driving force for plant growth and fruit production, proper water management is important. If a plant is not able to access enough water, it cannot maintain turgor pressure and it will begin to wilt.



Benefits:

- Save water consumption up to 20-30%
- Save energy
- Reduce tree maintenance
- Sustain maximum yield

Crop Coverage:

- Olives
- Citrus

Available soon:

- Stone fruits (incl. almonds)
- Grapes
- Pome fruits



About Yara

Yara's knowledge, products and solutions grow farmers', distributors' and industrial customers' businesses profitably and responsibly while protecting the earth's resources, food, and environment. Founded in 1905 to solve emerging famine in Europe, today Yara has a worldwide presence with more than 16,000 employees and sales to more than 150 countries.

The global brand name for Yara's fertigation portfolio, including all water soluble products, is YaraTera. YaraTera combines knowledge and experience in fertigation and plant nutrition to help you better manage your crops.