



# COSMOFIELD

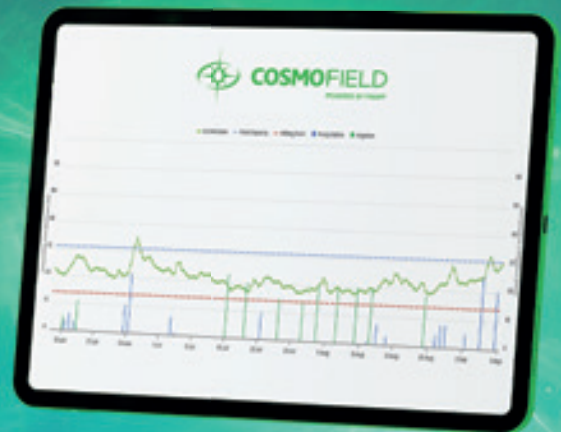
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## Smart monitoring of soil moisture

### What is Cosmofield?

Cosmofield is an innovative technology that monitors soil moisture in a non-invasive way, covering large areas with high precision and in real time. **It makes the irrigation decision-making process more accurate and efficient.**

Bauer, through the Irricontrol technology, **is the first irrigation** company to offer this solution, which revolutionizes the way soil moisture is measured by combining the precision of point sensors with the wide coverage required for irrigated agriculture.



### How does it work?

Did you know that soil moisture can be measured from space? Neutrons, which reach us from outer space, react in a particular way when they encounter hydrogen — an element present in water molecules ( $H_2O$ ).

Cosmofield detects these variations in near-surface neutrons and can therefore measure soil moisture with high precision, covering areas of 5 to 10 hectares (at sea level) continuously and in real time.



This advanced technology, called CRNS, has been recognized by the FAO (Food and Agriculture Organization of the United Nations) as the best way to practice “smart agriculture” in the market.



## Why choose Cosmofield?

Today, there are two main ways to measure soil moisture — but both face limitations that can affect field efficiency:

**Point sensors:** measure only small portions of soil, require direct installation, and must be removed and recalibrated for each new crop cycle.

**Satellite sensing:** covers larger areas but has low resolution, limited depth of analysis, and infrequent readings.

	COSMOFIELD	Point sensors	Satellite
In real-time	✓	✓	✗
In depth	✓	✓	✗
On a large scale	✓	✗	✓

That's why Cosmofield is a smart, autonomous, and precise solution for soil moisture monitoring. It measures continuously, in real time, without touching the soil, delivering reliable data for faster, more strategic irrigation decisions.

## Advantages:

- Optimizes irrigation based on accurate data
- Non-invasive: no contact with the soil
- Covers large areas: from 5 to 10 hectares, and can be replicated for even larger fields
- Operates autonomously with ultra-low energy consumption
- Continuous, real-time data transmission
- Resistant to variables such as salinity, texture, density, and soil roughness
- Quick and easy installation
- No need for frequent removal or recalibration
- Integration with the Irricontrol platform (coming soon)

Monitor your soil and harvest great results! Discover Cosmofield!



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