Leaf clips

Real time water content measurement

What can a leaf clip detect?

Detection of **drought stress** before wilting symptoms are visible.

How do you use a leaf clip?

Clip the leaf clip on the leaf, preferable in the middle of the youngest fully developed leaf. Connect with a **data logger**, which will record the variations in leaf thickness during the day. Place at least **3 sensors scattered around the field** to reach a conclusion. Initial calibration is needed before installation.

Scientific background & interpretation of the results

The leaf clip is a calibrated real-time leaf sensor that measures water levels of live plants. When the leaf shrinks due to water shortage, the voltage measurement in the clip increases. The leaf clip monitors the indirect measurement of leaf turgidity.

If plant experiences drought stress:

- ➔ Leaf turgidity and the leaf thickness will decrease ↓
- ➔ Voltage measurement will increase ↑

Pros & Cons

+ fast, accurate, continuous measurement, non-destructive, result can be interpreted by grower, space efficient
- fragile, relatively expensive, one system is not enough to monitor in practice, time-consuming installation and calibration, trained personnel required, datalogger required, leaf thickness is result of many different factors

Price range: € 5000 – 10000

Company: Agrihouse, Phyto-IT

More information?

https://www.agrihouse.com/secure/shop/item.aspx?itemid=134

http://www.phytosense.net/product-phytoclip.html