



Chameleon Card Instructions

The Chameleon Card is used with Chameleon Soil Water Sensors and reads soil moisture.

The sensors measure how hard it is for a plant to suck water out of the soil.

Installation depth

Sensors can be installed:

- individually in the active part of the root zone or
- at several depths in the same hole to measure the upper and lower part of the root zone.

Installation

1. Soak the sensor in water for a few minutes before installation.
2. Make a hole for the sensor using the tools available; for example, an auger, trowel or large drill bit. Leave enough width to pack soil firmly around the sensor.
3. Using a metal rod or wooden dowel, compact the soil down the hole and around the sensor. Ensure there is good contact between the sensor and soil.
4. A 20 mm pipe (metal or PVC) can be used to make a hole the same diameter as the sensor. Push the sensor into the hole using a metal rod or wooden dowel.

Reading

1. Hold down the button.
2. Place the two bare wire into the slots in the gold leaf.
3. The LED will display blue, green or red.

Interpreting

LED colour	Meaning
Blue	Wet Soil
Green	Moist soil
Red	Dry soil
Flashing yellow	Sensor wire is not connected
Flashing red	Battery needs replacing

Accuracy and longevity

Each batch of sensors is tested in the laboratory before the sale to check the colours change at the correct soil moisture. Sensors give accurate readings for two to four years, depending on soil conditions.

The accuracy/lifespan can be shorter in very wet or salty conditions and where sensors are placed at shallow depth directly under drip emitters, where the calcium sulphate will outer casing will dissolve more rapidly.

If your sensor fails to turn blue after irrigation when it normally does, its time to replace it.

Battery life

The battery should last for 1000 readings. When the LED flashes red, the battery needs to be replaced.

Battery type: disposable CR2032 watch battery

More about the sensor

The sensor contains an inner core comprising a material with unique hydraulic properties, surrounded by a shell of calcium sulphate to buffer against changes in the salinity of the soil.

The sensor measures how hard it is for a plant to suck water out of the soil and has the same meaning for all soil types.

More information

For more information about the Chameleon and how to interpret the data, see FAQ <https://via.farm/faq/>

For more information about the Virtual Irrigation academy, see <https://via.farm/>