



Root Sense

 Viridix Technology

Root Sense, a component in **NaanDanJain AgTech** solutions, that helps farmers **irrigate** in the most optimized way.

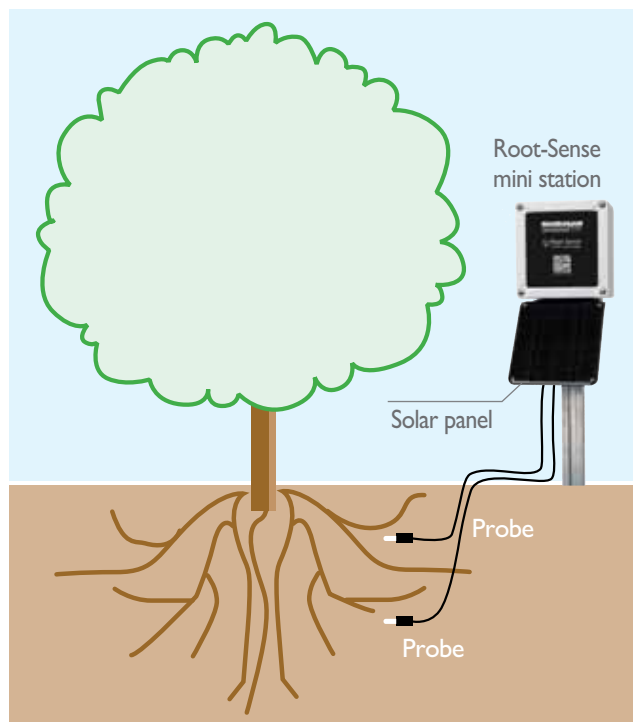
The **Root Sense** sensor technology collects highly accurate data relating to the **root zone water potential** and the micro-climate. This data is collected in real time and is crunched by an algorithm that highlights every important event and displays it on the **mobile app** and **website**. This provides the user with **vital insights and alerts with action** recommendations.

NAANDANJAIN
A **JAIN IRRIGATION** COMPANY

SENSE – ANALYZE – RECOMMEND

ROOT SENSE MINI-STATION

- Highly accurate, low maintenance and reliable precision irrigation system.
- One Root Sense mini-station has two soil probes for the measurement of the soil temperature and the water potential at two different depths, up to 200 cm, and also an air temperature sensor to measure the micro-climate.
- The probes can be installed horizontally for optimal contact with the soil and roots, or vertically like tensiometers.
- The Root-Sense works in any soil, crop and water types.
- No need for ongoing calibration or maintenance.



Because the system is so cost-effective, growers/farmers can place a large number of stations. This allows them to match the precise irrigation according to the variation between plots.



Root Sense - Technical Specifications

Water potential range	0 – 120 centibar
Number of water potential sensors	Up to 2
Maximum depth	Up to 200 cm
Operating Temperature	2-50°C
Probe cable length	3 m
Accuracy	±0.5 centibar
Sensor dimensions	120 x 28 x 28 mm
Resolution	0.1 centibar
Sampling time	3 min

ONLINE DATA LOGGER

- Always online, cellular 3G/2G connected logger.
- Robust, agricultural grade IP 68 data logger.
- Internal 4400 mAh battery works without sun for 6 months.
- Adjustable 2w solar panel - 1 hour of sun per day will fully charge the battery.
- 120 cm aluminum poll for easy and flexible installation.
- QR code for quick data reading with mobile phone.

Data Logger - Technical Specifications

Communication	Cellular 3G/2G
Solar panel	2w
Operating temperature	2-50°C
Poll height	120 cm
Measurement transmission time	Real time experience
IP 68	✓
Bands	Band VIII (900 MHz)
	Band I (2100 MHz)
UE Class	Class A
Power Class	Class 3 (24 dBm) for all band
Internal battery	4400 mAh



MOBILE APP

- The system analyzes the data provided by the sensors and gives easy-to-understand actionable insights.
- Facilitates easy installation through a simple scan of QR code.
- Receives stress and weather alerts in real time.
- Analyzes irrigation data over time.
- Monitors all the fields in the farm.

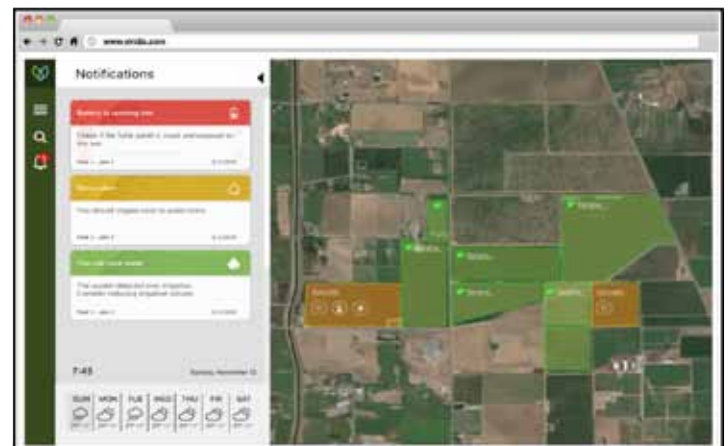
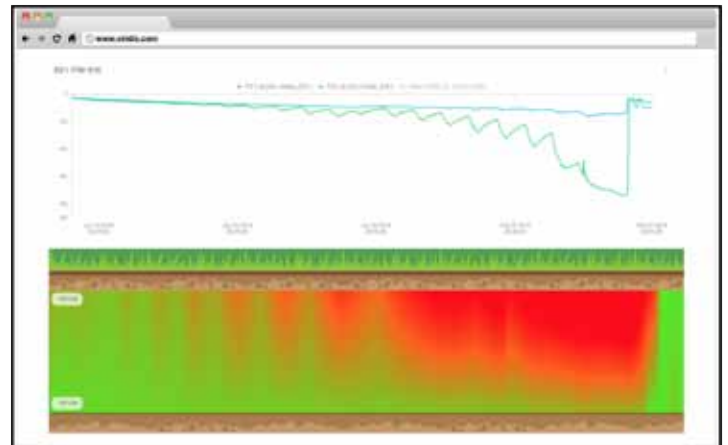




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WEB ANALYTICS

- Easy-to-use web user interface.
- View of history of the soil water potential.
- Soil cross section diagram helps you understand the water potential at multiple depths.
- Full satellite view of all your fields.



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