



Viridix

Installation guide

Topics

- System overview.
- Registering a new organization.
- Subscribing a new device.
- How many systems and where to install.
- Getting the system ready.
- Installation in the field.
- Pairing your new device with the application.
- Working with the application and setting alerts.
- Working with the web page.



System overview

1. Data logger- rechargeable battery, cellular 2G/3G modem, processing unit
2. Solar panel
3. Aluminum lightweight pole (3 pieces)
4. 2 Viridix RootSense sensors- measure water potential and temperature



Registering a new organization



1. Go to www.viridix.com in the web
2. Click register in the top navigation bar
3. Fill in the details
4. Get 4 digit code to your phone to verify your number.
5. Dowload the Viridix app from the apple store or google store(there is a link in the SMS you got from viridix)
6. Open the app fill in the details.



Subscribing a new device

Inside your organization click subscribe

The screenshot shows the Viridix web application interface. At the top, there is a navigation bar with the Viridix logo and links for Home, Manage Users, Manage Alerts, Add new organization, and Log Out. The main content area is titled 'Manage Users' and displays a user entry for 'test1211212'. To the right of this entry is a 'Subscribe' button. Below this, there is a 'Team Members' section with an '+ Add team member' button and a table listing users. The table has columns for Full Name, Phone Number, email, Role, and Actions. One user is listed with the name 'dad', phone number '972526367435', email 'dekelbeno@hotmail.com', and role 'System Admin'. At the bottom, there is a pagination bar showing 'Page 1 of 1' and '5 rows'.

Full Name	Phone Number	email	Role	Actions
dad	972526367435	dekelbeno@hotmail.com	System Admin	 

1. Fill in the number of devices you want to subscribe for 1 year.
2. Add client payment details (this is to make it easier to renew the subscription next year, the client will not be charged for the first year)
3. Click enter payment details, fill in the information, click place your order.

The screenshot shows the Viridix checkout page. The 'Your Order' section displays a 'Viridix Yearly Subscription' for US\$0.00, which renews every year starting on 30 Aug 2021. The subscription includes features like precision irrigation site and mobile app, analytics, alerts, SIM card global coverage, online support, and weather forecast service. A dropdown menu is open next to the quantity '1', showing options from 0 to 10+. The 'Your Payment' section shows the email 'tes121t@gmail.com' and a subtotal of US\$0.00. A checkbox labeled 'Securely save payment details for automated subscription renewal' is checked. An arrow points to this checkbox with the text: 'Uncheck the checkbox if you don't want to save the clients payment method.' Below the payment options, it states 'Sold and fulfilled by FastSpring an authorized reseller' and provides links for 'Privacy Policy' and 'Terms of Sale'. Payment logos for VISA, Mastercard, Discover, American Express, and PayPal are visible at the bottom.

How many systems and where to put them?

- We recommend to put one system on each irrigation valve so the client can react, and change irrigation protocol based on data.
- If we have a field with a lot of variability in it, we recommend to put 1 system in the good area and 1 system in the bad area and compare them.
- We want to pick a good representative plant or tree to monitor, not the biggest or the smallest tree, something in the middle.
- We want to place the system not in the beginning or the end of the row to avoid outlines errors, again we want a good representation.

Getting the system ready

1. Connect the 3 pieces of the pole together and close the clips.
2. Open the data logger and connect the battery wire to the battery socket.
3. Watch the led light complete the cycle and turn off (cellular check).
4. Connect the red solar panel wire to the red wire from the data logger and face the panel to the sun to check charging (red led light turn on).
5. Install the sensors in the hole in the ground.
6. Connect the sensors to data logger (red sensor to red socket and blue sensor to blue socket)
7. Press reset button inside the data logger.
8. Place the system pole in the ground facing the sun for good battery charging.
9. Attach the sensor cable with the holding strap to the pole.
10. Cover the remaining sensors wires in the ground.



Installation of the sensors

1. Drill a hole in the ground under the irrigation drip and make sure it is close to the roots for best results (too far from irrigation drip will not give us representative results).
2. **Take off** the cover of the sensor from the ceramic cup.
3. Place the blue sensor in the bottom of the hole standing(deep sensor) and place around it clean soil(only soil and no rocks). If the soil is very dry it is best to pour water on the soil and close all the air gaps. Make sure the ceramic part of the sensor has good contact with the ground around it **(very important)**
4. Close the rest of the hole until you want to place the second sensor (red sensor) make sure to slightly pack the soil back to its original state(add water if needed).
5. Install the sensor in the same manner as the blue sensor, make sure you have good contact with the ceramic part with the ground.
6. Close the remaining hole with soil and use water if the soil is dry.
7. Connect the sensors to the data logger and cover up the remaining cable wire with soil.



Sensor installation

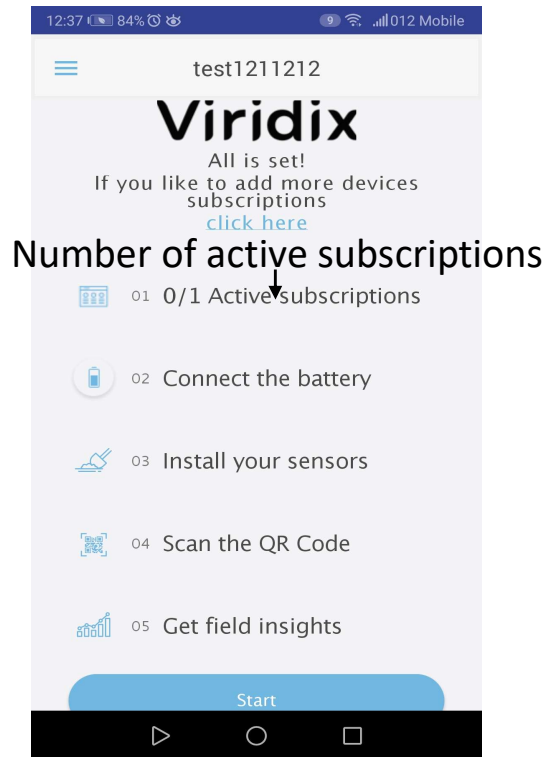
- Close to the tree
- Under irrigation drip
- In the roots area
- Use only soil (no rocks, leaves)
- Correct depth based on crop type



Cover the remaining sensor cable with soil and close the hole.

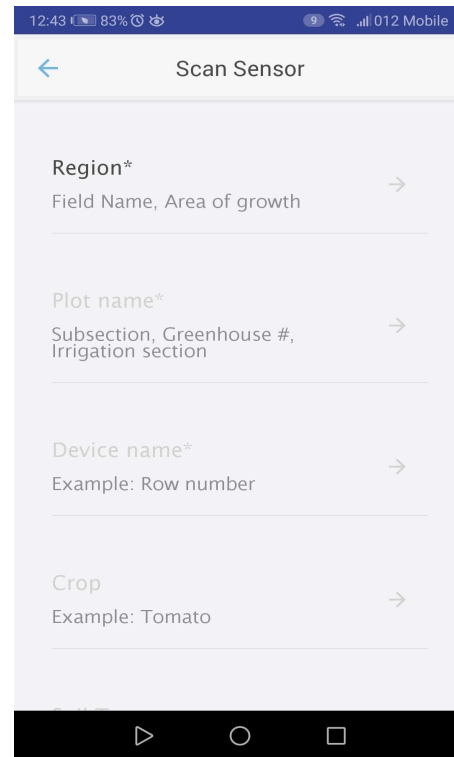


Pairing your new device with the application

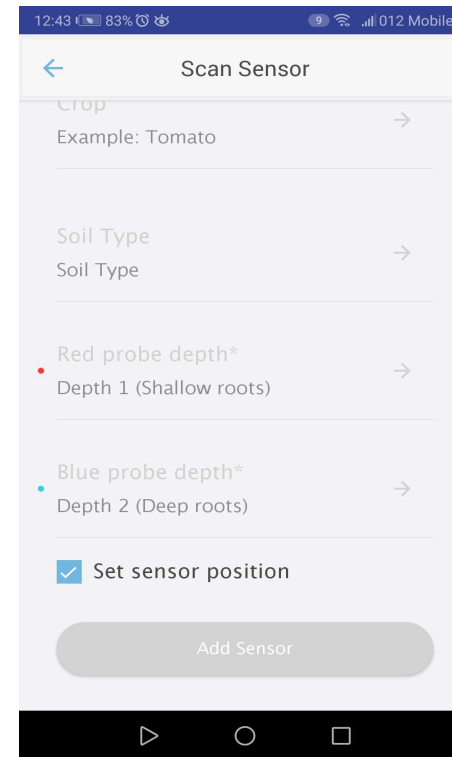


Number of active subscriptions

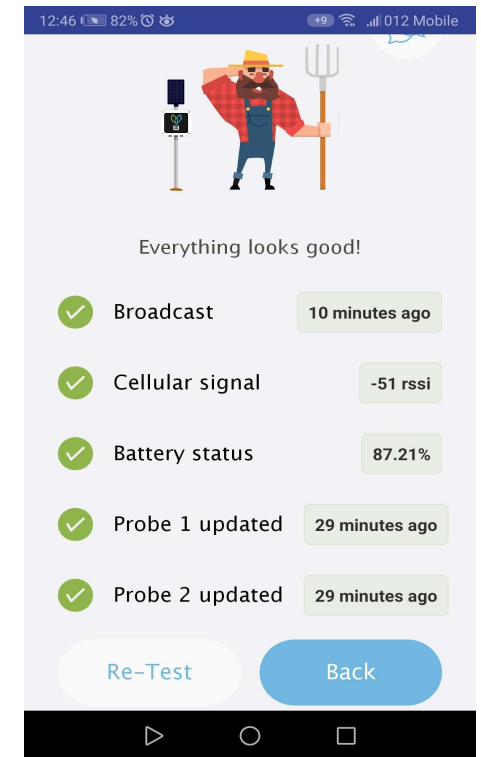
1. Click start
2. Read the manual
3. Click Add Sensor
4. Scan the QR code on the data logger



- Fill all the system information (region, plot name, crop type, soil type, depth of sensors).



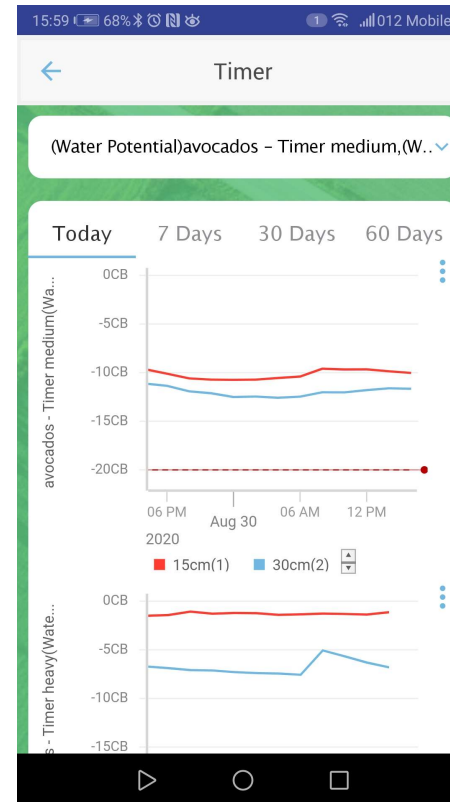
- Click Add Sensor



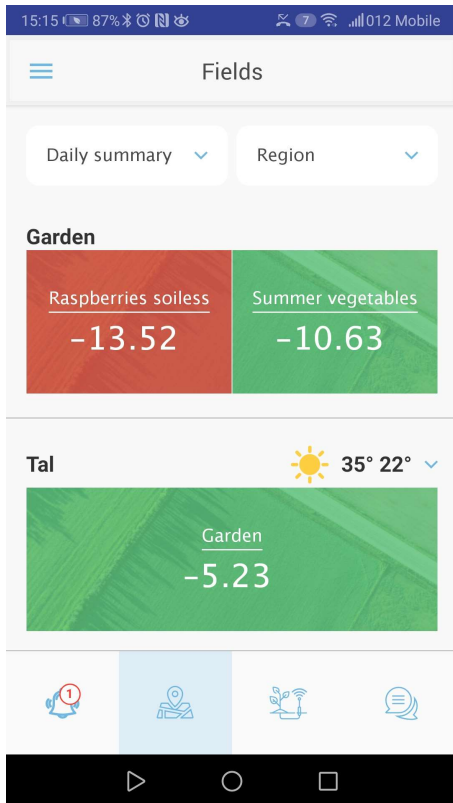
- Check that the system is running well.

Plot View

- High level View of all the systems.
- Daily, weekly, monthly summery.
- Selector of Region or crop type.
- Plot colors change based on sensor threshold (green=good, yellow=medium, red=needs attention, grey=no threshold alert set)
- Weather predictions based on the GPS position of the system.

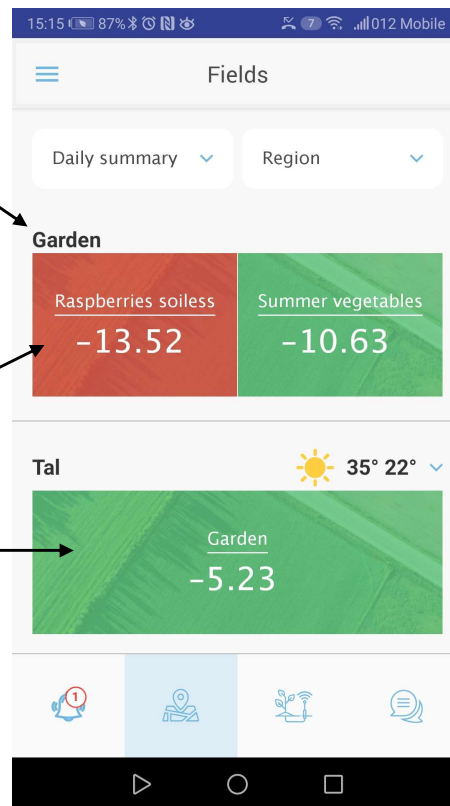


- You can select and compare between systems.
- You can add or remove different parameters to see:
- Water potential
- Ground temperature
- air temperature
- Precipitations(rain fall)
- System battery



How to get the most from Plot View

1. Systems in the same area should have to same Region name.
2. If you have 2 or more systems in the same plot, give them different device name(row 6-tree 5).
3. Set threshold alerts to get insights about your field water potential.
Red color = needs attention.
Yellow color = consider irrigation.
Green color = field is taken care of.



Example

- Region
 - Plot
 - Sensor name
 - Sensor name
- Garden
 - Raspberries soiless
 - Summer vegetables

Map

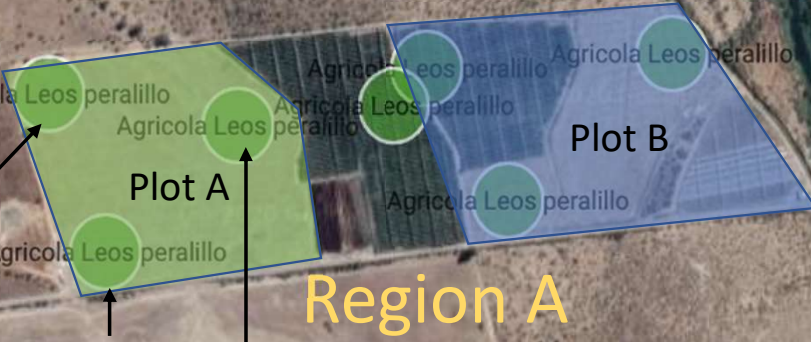
Satellite



Row 1-tree 4

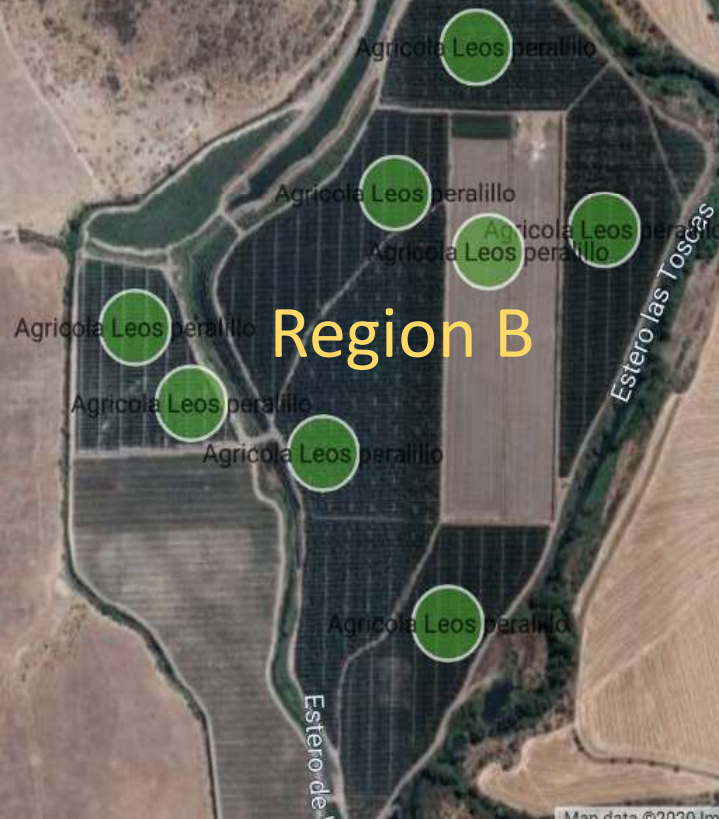
Row 7-tree 5

Row 4-tree 15



Region A

Example of devision



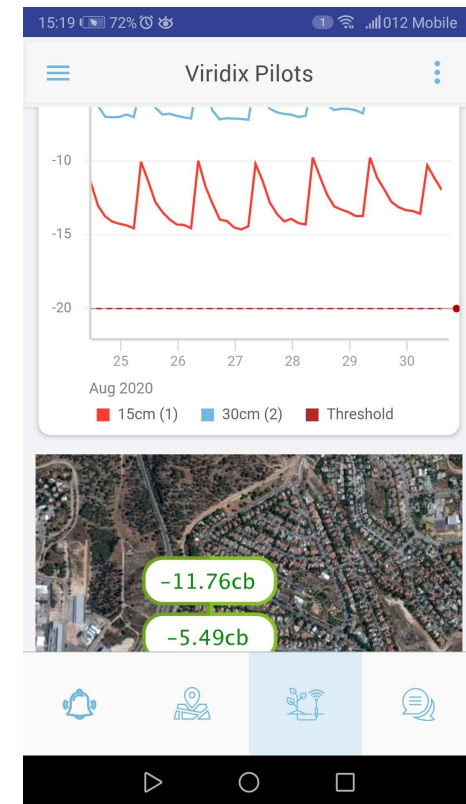
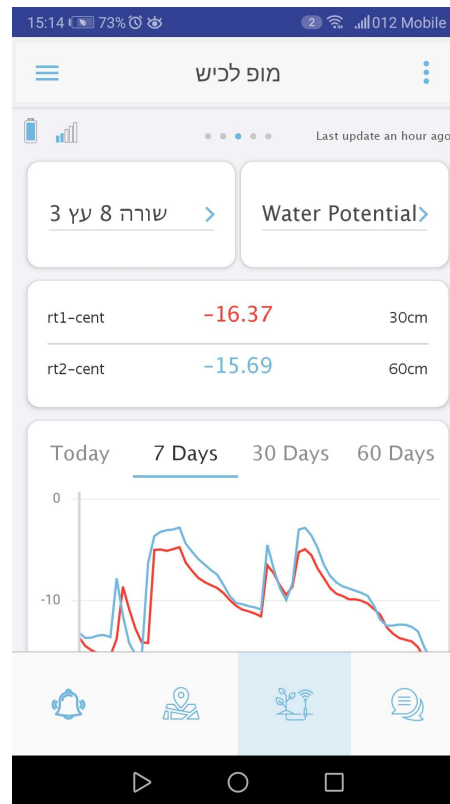
1-340



Working with the application and setting alerts.

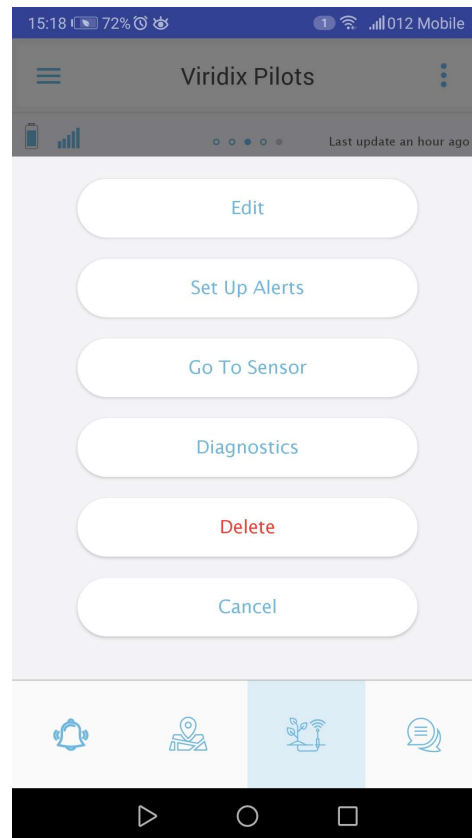
System overview:

- Battery level
- Cellular signal
- Last update
- Device selector
- Sensor last value
- Graph with date selector
- Data selector:
- water potential
- Ground temperature
- battery level
- Map with GPS position

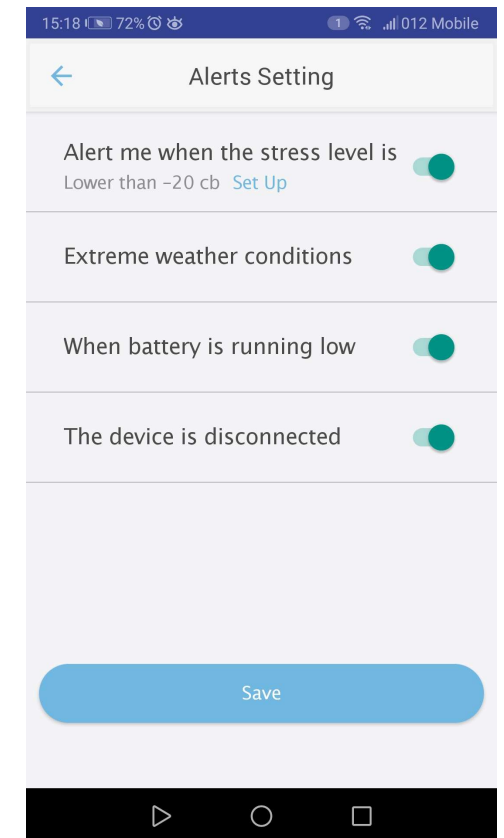


Device settings and alerts

- In the sensor view:
- Click the 3 dots in the top right corner to enter settings
- Click set up alerts
- Navigate to the system with Waze or Google maps
- Diagnostic tool(check the system)
- Delete the system from the organization
- Edit system details



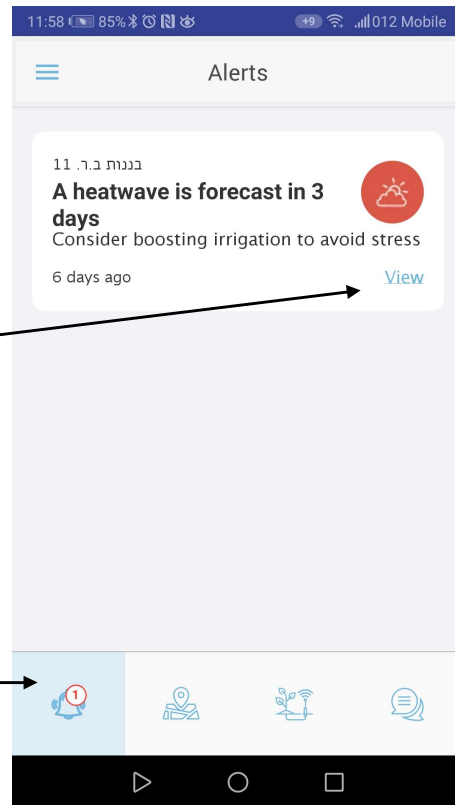
- Click set up alerts
- Selects the alerts you want.
- System will send a notification if any of the alerts happened
- Alert types:
- Water potential stress is building up
- Harsh weather coming(heat wave or frost)
- Low battery
- Device offline



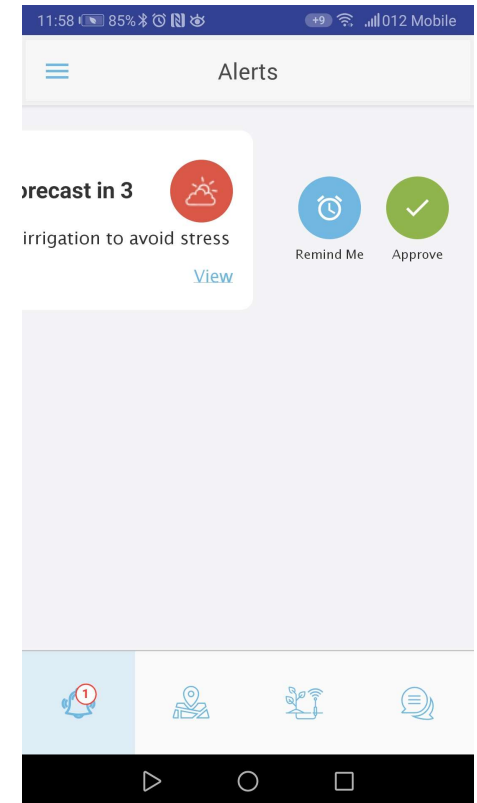
Alerts page

- All the system alerts will be displayed (heatwave, frost, water potential low, system disconnected, low battery)
- Click on view will take you to system view for more details.

Alerts tab

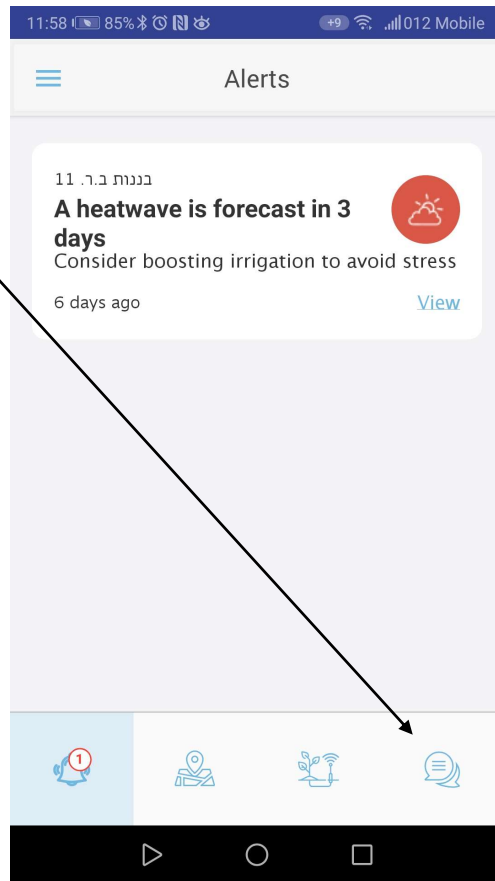


1. Slide the alert left to decide what to do with the alert.
2. Select approve to delete the alert. You can write the reason if you want, its optional
3. Select remind me later if you want the app to remind you again.

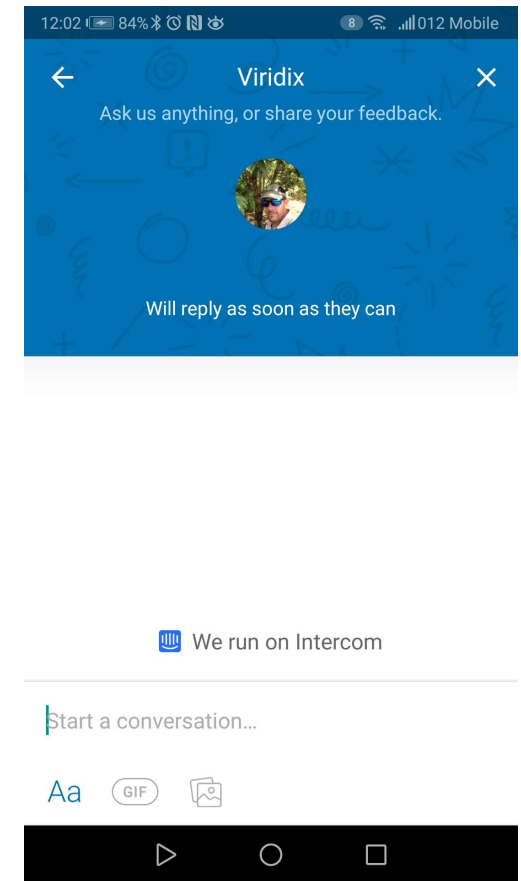



Contact us via the app

Click on the chat tab from anywhere in the app



Chat with our support team on any question or problem you have. The client can contact us directly from this chat





Working with the web page

- After pairing a device with the organization you will get an email with invitation to your organization web page.
- In the mail you see your username.
- Click on the link and then you will be asked to setup a new password.
- Create a password and enter your organization web page.

Date selector

System selector

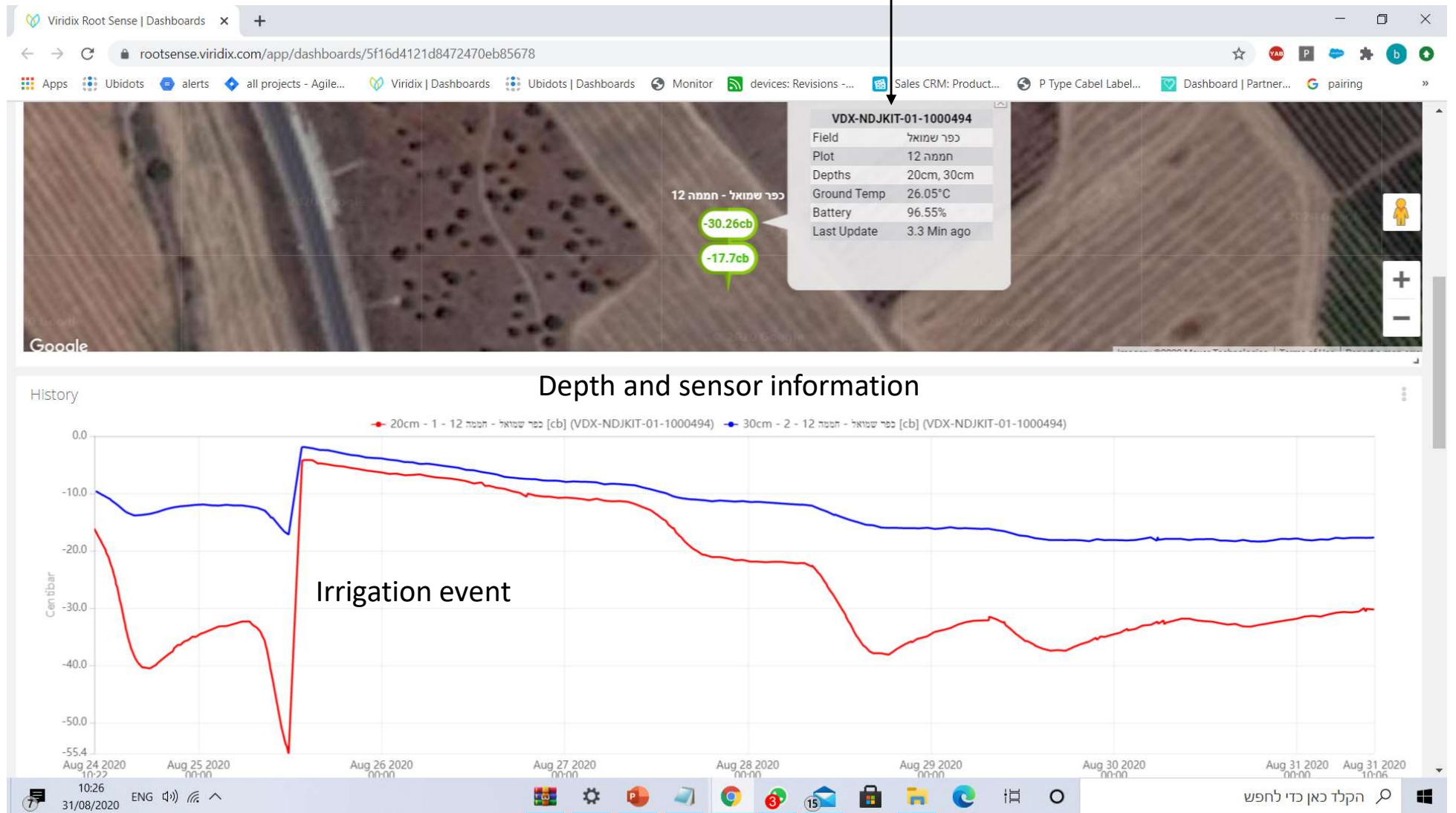
The screenshot shows the Viridix Root Sense dashboard interface. At the top, there is a navigation bar with the Viridix logo, 'Devices' and 'Data' dropdown menus, and a user profile icon. Below this is a blue header bar containing a date range selector ('Aug 24 2020 10:15 - Aug 03 2020 23:59') and a system selector ('כפר שמואל - חממה 12').

The main content area is divided into two sections. The top section, titled 'Weather', displays a current temperature of 31° and is described as 'Humid' with a wind speed of 5 mph (E). Below this is a 7-day forecast table:

Day	Icon	High	Low
Today	Sunny	35°	23°
Tue	Sunny	34°	22°
Wed	Sunny	34°	21°
Thu	Sunny	34°	20°
Fri	Sunny	35°	23°
Sat	Sunny	36°	22°
Sun	Sunny	34°	21°
Mon	Sunny	34°	22°

A red warning banner below the forecast reads 'HEAVY HEAT STRESS'. The bottom section, titled 'Realtime data', shows a satellite map of the location with a 'Map' and 'Satellite' toggle. The map displays agricultural fields and a central label 'כפר שמואל - חממה 12'. The Windows taskbar at the bottom shows the time as 10:17 on 31/08/2020.

Map with GPS position and last system information



Ground temperature

Battery level

The screenshot shows a web dashboard with two main data visualization panels. The top panel, titled "Ground temperature", displays a line chart with two series: "20cm - Ground Temp #1 [°C]" (red line) and "30cm - Ground Temp #2 [°C]" (blue line). The y-axis is labeled "Degrees celsius" and ranges from 24.50 to 26.50. The x-axis shows dates from Aug 24 2020 10:34 to Aug 31 2020 10:06. The bottom panel, titled "Battery charge level", shows a single orange line representing the battery charge percentage, which remains consistently near 100% over the same time period. To the right of the battery chart is a summary widget showing a green battery icon, the text "97%", and "Last Updated: 08/31/2020 10:06". The browser's address bar shows the URL "rootsense.viridix.com/app/dashboards/5f16d4121d8472470eb85678". The Windows taskbar at the bottom shows the time as 10:34 on 31/08/2020 and the system language as ENG.

Date	20cm - Ground Temp #1 [°C]	30cm - Ground Temp #2 [°C]
Aug 24 2020 10:34	24.8	25.6
Aug 25 2020 00:00	25.5	25.8
Aug 26 2020 00:00	25.2	25.7
Aug 27 2020 00:00	25.5	25.7
Aug 28 2020 00:00	24.8	25.6
Aug 29 2020 00:00	25.3	25.5
Aug 30 2020 00:00	25.8	25.7
Aug 31 2020 10:06	26.0	26.2

Date	Battery Charge Level (%)
Aug 24 2020 10:34	98.5
Aug 25 2020 00:00	98.5
Aug 26 2020 00:00	98.5
Aug 27 2020 00:00	98.5
Aug 28 2020 00:00	98.5
Aug 29 2020 00:00	98.5
Aug 30 2020 00:00	98.5
Aug 31 2020 10:06	97.0

Thank you
Viridix
support team

