

CCMobile App

User Manual

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Applicability

This CCMobile App user Manual is applicable to version 6.4.2 of the CCMobile App available on the Google Play Store or the Apple App Store. The version of CCMobile App installed on your phone can be found on the **Settings > About** page.

1: Summary

The ConnectedCrops system is a powerful tool that provides real-time temperature and/or soil moisture data in agricultural fields on a user's mobile phone. This real-time data, in addition to email, text, and phone message alerts, allows agricultural professionals to make key decisions for irrigation, frost protection, and spraying without having to be in the field, or even in the country. Users can receive monthly reports to see data changes for a station over the month and can receive historical data to allow comparisons and look for trends from field to field, month to month, or year over year.

CCMobile App ("the App") is a mobile application for ConnectedCrops Agriculture Stations ("Stations"). The App enables ConnectedCrops owners/users to:

- view sensors' readings of the crops on their farm(s),
- control the ConnectedCrops station's operation,
- setup email, SMS, and/or Phone messaging alerts based on sensor readings,
- view or download historical sensor data, and
- receive monthly sensor data in PDF chart and Microsoft Excel formats.

CCMobile was built and designed using growers' requirements and feedback to ensure it satisfied their needs for a reliable tool – a tool that told them the temperature and soil moisture condition of their farm, anytime and anywhere in the world, in real-time. No need for data extraction and no need to be physically close to the Stations.

This **CCMobile App User Manual** describes the features available in the App, how to troubleshoot conditions that can occur, and how to contact ConnectedCrops support staff for additional support.

> **NOTE**: This manual contains detailed instruction for using the ConnectedCrops CCMobile App. For instruction for the installation and registration of ConnectedCrops station, please refer to the appropriate station user manual found at https://www.connectedcrops.ca/manual

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2: Getting Started

2.1: Download and install the CCMobile App

On your phone, navigate to the App Store for iPhones OR the Google Play Store for Android phones.



Once in the store:

- search for **connectedcrops** (one word), **ccmobile** or **Esprida**
- click on the application icon with the description **ConnectedCrops - CCMobile**
- click on the Install button
- Once installed, click on the Open button to launch the CCMobile App

2.2: Signing Up or Signing In

To activate the Kernel6 station, you need to set up your account in the CCMobile App. If you've already activated a station previously, or know you already have an account, click the



button and log in with your user credentials.

If you know the email address used for your account but forget your password, click on the Forgot your password? link to trigger a password reset.

For a first-time user, a ConnectedCrops account must be created:

1. launch the CCMobile Application
2. click on Sign Up Now
3. fill in your farm name and the remaining fields. Note: *All fields are mandatory*
4. view the Licence Agreement
5. click on the



button

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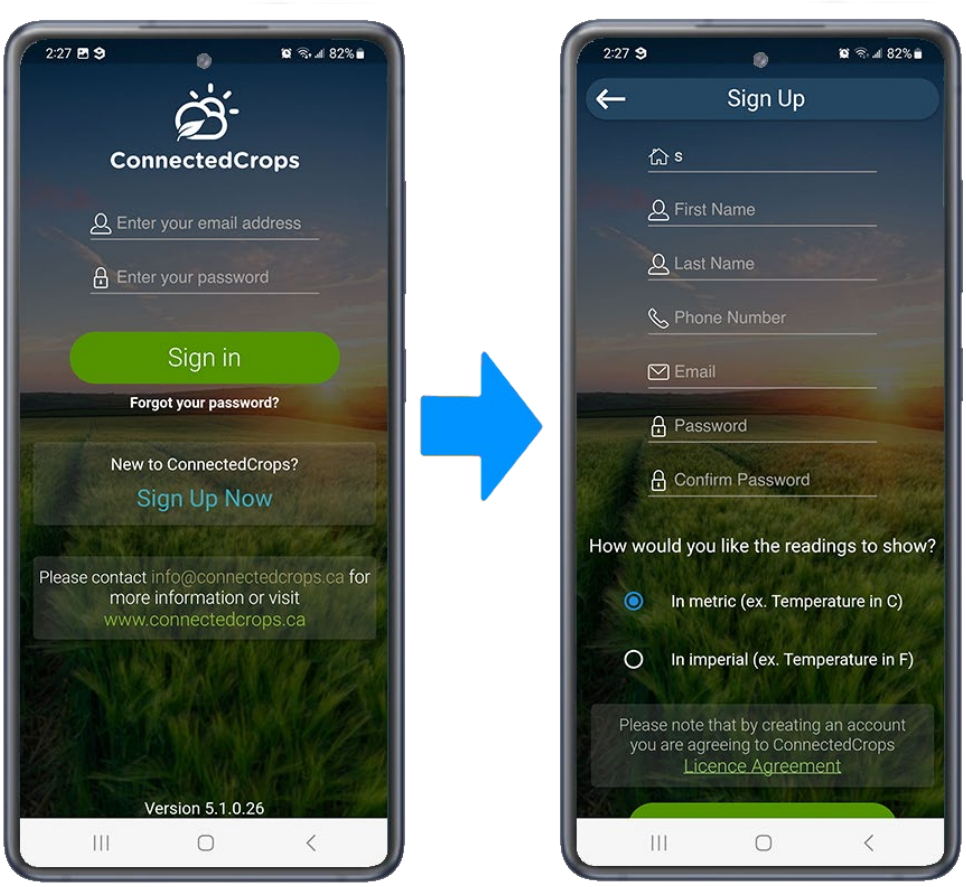


Figure 1: Sign In or Sign Up

6. Once pressed, you will see an ALERT confirmation message on your screen and an email will be sent to the email address you entered with the confirmation/activation link

7. Click on the OK button in the ALERT screen

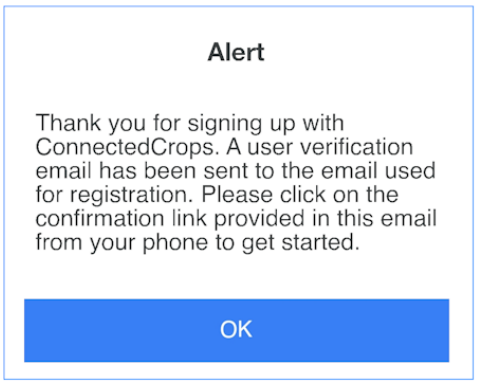


Figure 2: Sign up Alert

NOTE: CCMobile App passwords must conform to the following specifications:

- a minimum length of 8 characters
- must contain at least one (1) number
- must contain at least one (1) lower case letter
- must contain at least one (1) upper case letter
- must contain at least one (1) special character from the list of

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8. You will be directed back to the Sign in screen (Figure *1*)
9. On the same phone, open the email you received from ConnectedCrops and click on the link to verify your account

NOTE: if you don't see the email, please check your Spam or Junk folder.

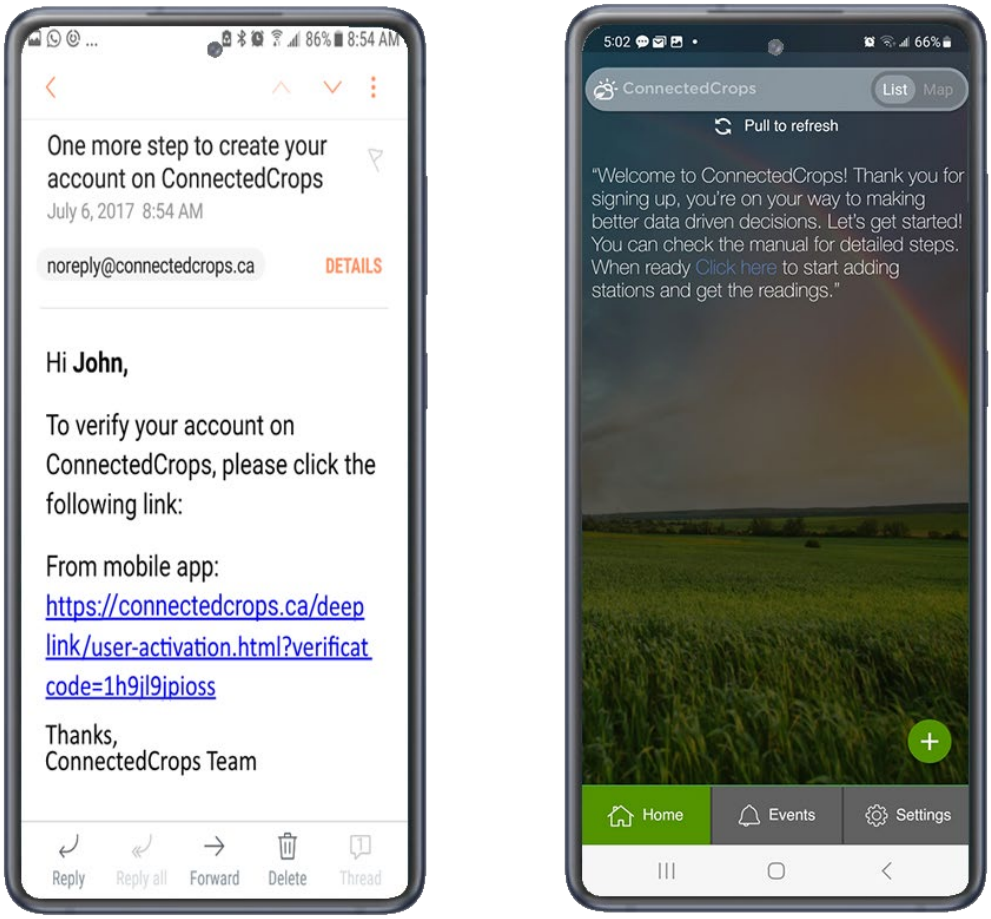


Figure 3: Sign Up verification

10. clicking on the link in the email will re-launch the CCMobile App and log you in if you are using the same phone on which you signed up. If not using the same phone, enter the email address and password credentials you just created and click on the Sign in button
11. the first time you log in, the CCMobile App will provide some help pages to give you a quick overview of its features. We recommend reading them
12. if you encounter an alert message indicating the account is not active, email support@connnectedcrops.ca and provide the email address you are trying to setup, and our support team will manually activate your account

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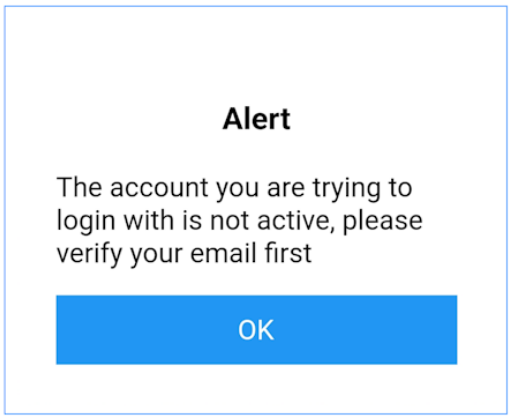


Figure 4: Not Active Alert

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3: The CCMobile App Pages

The CCMobile App has 3 primary pages from which all station information and sensor data can be obtained: the **Home** page, the **Events** page, and the **Settings** page.

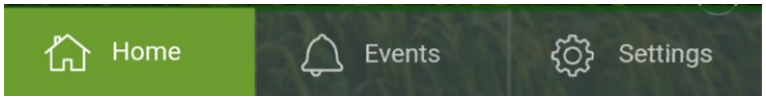


Figure 5: Screen Menu

Most of the pages in the App will have these 3 buttons available on the bottom. If you don't see these 3 buttons on the bottom of the page, there will be a back arrow at the top of the page that allows you to return to the previous page.

Section 3 of this document describes each page displayed in the CCMobile App.

3.1: The Home Page

The Home page provides a singular view of the current sensor readings on each of your stations, with stations ordered alphabetically by station name. If your stations are located on leased fields from other farmers, customizing the station name to include the farm name will simplify the identification of the station. Users can view their stations in either a **List** view or a **Map** view. The view can be toggled using the List / Map slider.

There are two models of ConnectedCrops stations:

- Model 5: has 4 sensors ports to accommodate any combination of soil moisture and/or temperature sensors, comes with a solar panel to continuously charge the station battery, and has an internal temperature sensor and humidity sensor for monitoring the internal station enclosure conditions,
- Kernel6: has 2 sensors ports that accommodate a growing list of sensors, is powered by a rechargeable battery that can last an entire growing season on a single charge and has

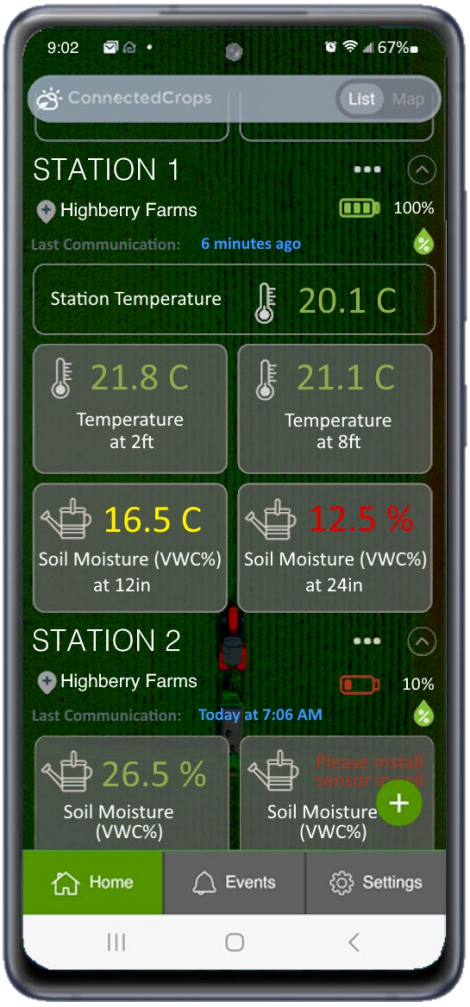


Figure 6: Home Screen

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an internal temperature sensor and humidity sensor for monitoring the internal station enclosure conditions.

The components depicted on the Home page are shown in Figure *7*.

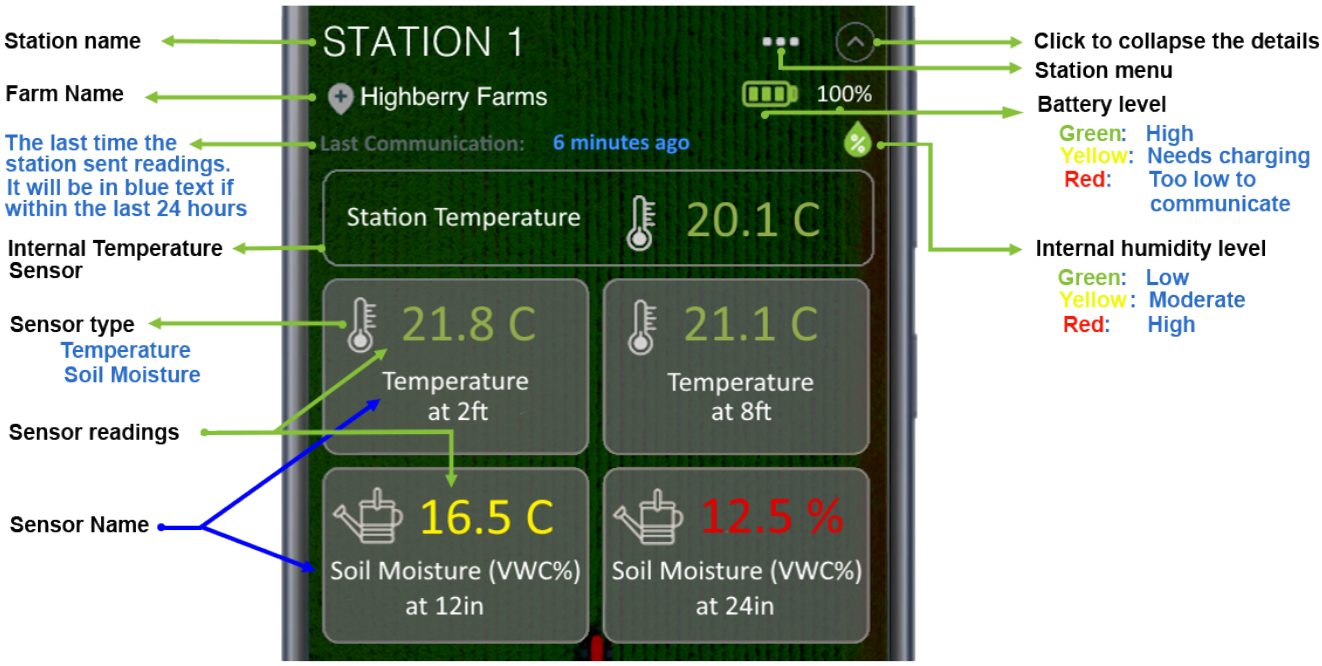


Figure 7: Sensor Components

Each of these components will be described in greater detail in the section below.

There are two different manners in which sensors will be displayed on the Home page:

- A sensor that measures a single environmental parameter will appear with a box around the parameter icon, sensor reading and the custom sensor name (e.g., **Temperature at 2ft** in Figure *8* below and the sensors displayed in Figure *7* above),
- A sensor that measures multiple environmental parameters will appear with a box around each individual parameter icon, sensor reading and the custom sensor name and will also group all of the environmental parameters in another shaded box to indicate that all of the environmental parameters come from a single sensor (e.g., the sensor labelled **Sensor at 12”** measures soil temperature, soil moisture and soil electrical conductivity as shown in Figure *8* below).

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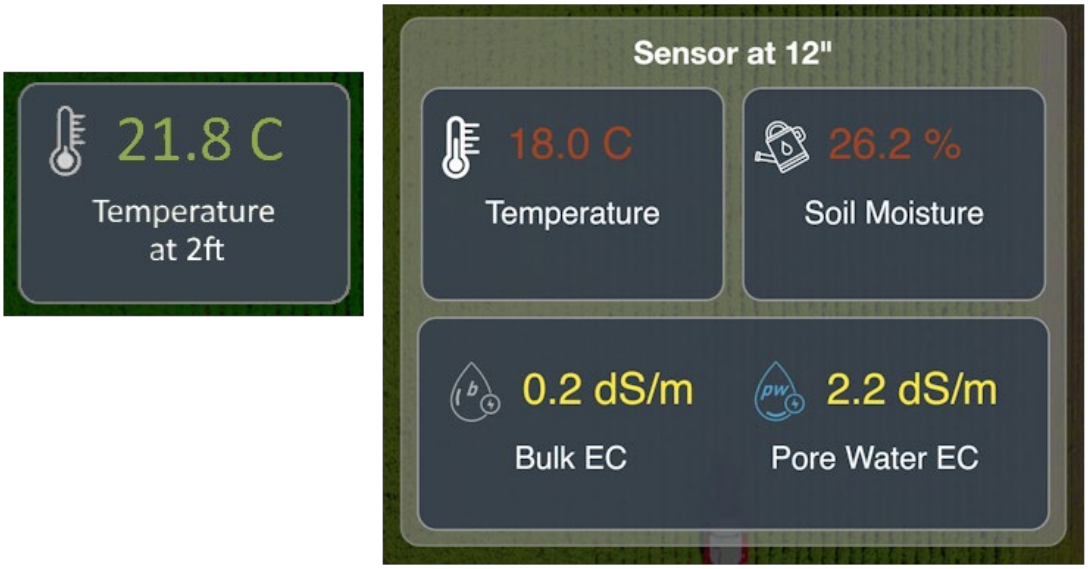


Figure 8: How sensors are displayed

3.1.1 Last Communication time

The Last Communication field indicates the last time the station transmitted any data to the ConnectedCrops Cloud.



Figure 9: Last Communication time

If the reported time is in blue, the last communication was within the last 24 hours. If the reported time is in red, the last communication was more than 24 hours ago.

3.1.2 Battery Level

Battery level readings can be in green, yellow, red, and gray depending on its status.

- if the battery level is between 40% and 100%, the battery icon will be green
- if the battery level is between 21% and 39%, the battery icon will be yellow
- if the battery level falls below 20% of full charge, the battery icon will be red
- if the battery level is outside of the range of 0% and 100%, or an internal error signal is received, the battery icon will be gray

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3.1.3 Soil Moisture measurements

Soil Moisture sensor readings may appear in green, yellow or red depending on their status. The status is measured based on the thresholds you specify in the CCMobile App. If not defined, CCMobile will use default thresholds defined during the sensor registration.

The image below depicts an example of a soil moisture sensor with defined thresholds for:

- at or below Wilting Point (sensor readings will appear in red)
- approaching Wilting Point (sensor readings will appear in yellow)
- approaching Field Capacity (sensor readings will appear in yellow)
- at or above Field Capacity (sensor readings will appear in red)
- in the ideal soil moisture range (sensor readings will appear in green)

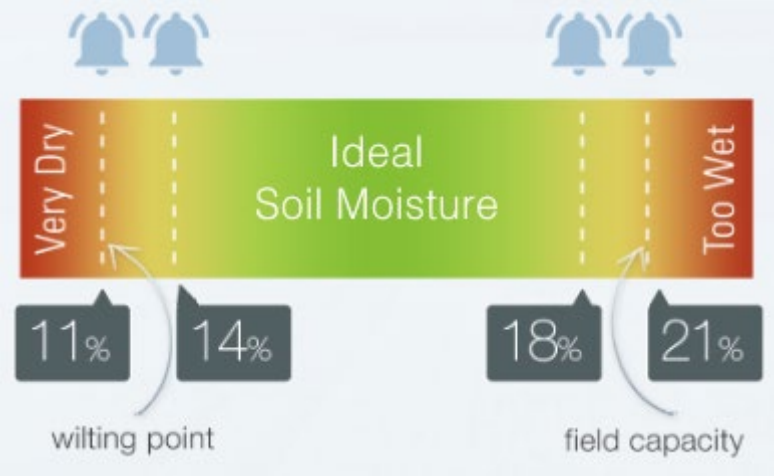


Figure 10: Soil Moisture Sensor thresholds

In some scenarios, you may also see error messages in place of a soil moisture reading:

Error Message	Reason	Required Action
Please connect the sensor	The App is not getting readings for soil moisture from the sensor. Either it's not properly connected or physically damaged	Try to connect the sensor as described in the manual and check for possible physical damage
Sensor setup mismatch	The sensor type chosen during sensor setup doesn't match the actual sensor type connected to the Station	Connect the sensor to the correct port on the station or correct the sensor type on the Sensors Setup page under **Station Configuration** in the CCMobile App

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Please install sensor in soil	Indicates that the sensor is connected but the readings coming from the sensor indicate it is not inserted in soil.	If it is installed in soil, check for air gaps around the installed sensor.
Error	Reading is out of range	Check the physical condition of the sensor and cable. If it doesn't change, the sensor may be damaged/defective. Contact support

3.1.4 Temperature measurements

Temperature sensor readings may appear in green, yellow or red depending on their status. The status is measured based on the thresholds you specify in the CCMobile App. If not defined, CCMobile will use the default thresholds defined during the sensor registration.

The image below depicts an example of a temperature sensor with defined thresholds for:

- at or below Low Temperature threshold (sensor readings appear in red)
- < 3 degrees above the Low Temperature threshold (sensor readings appear in yellow)
- < 3 degrees below the High Temperature threshold (sensor readings appear in yellow)
- at or above the High Temperature threshold (sensor readings appear in red)
- in the ideal temperature range (sensor readings will appear in green)

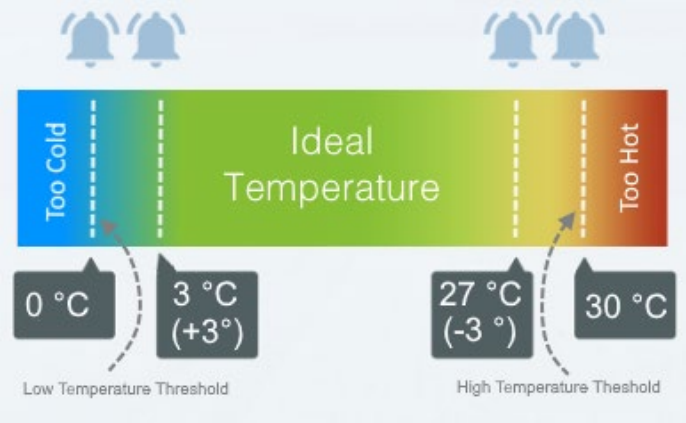


Figure 11: Temperature Sensor thresholds

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In some scenarios, you may also see error messages in place of a temperature reading:

Error Message	Reason	Required Action
Please connect the sensor	The App is not getting readings for temperature from the sensor. Either it's not properly connected or physically damaged	Try to connect the sensor as described in the manual and check for possible physical damage
Sensor setup mismatch	The sensor type chosen during sensor setup doesn't match the actual sensor type connected to the Station	Connect the sensor to the correct port on the station or correct the sensor type on the Sensors Setup page under **Station Configuration** in the CCMobile App
Error	Reading is out of range	Check the physical condition of the sensor and cable. If it doesn't change, the sensor may be damaged/defective. Contact support

3.1.4 Electrical Conductivity measurements

Electrical Conductivity sensor readings may appear in green, yellow or red depending on their status. The status is measured based on the thresholds you specify in the CCMobile App. If not defined, CCMobile will use default thresholds defined during the sensor registration.

The image below depicts an example of an electrical conductivity sensor with defined thresholds for:

- at or below the Critically Low Salinity Threshold (sensor readings will appear in red)
- approaching the Critically Low Salinity Threshold (sensor readings will appear in yellow)
- approaching the Critically High Salinity Threshold (sensor readings will appear in yellow)
- at or above the Critically High Salinity Threshold (sensor readings will appear in red)
- in the ideal salinity range (sensor readings will appear in green)

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Figure 12: Temperature Sensor thresholds

In some scenarios, you may also see error messages in place of a temperature reading:

Error Message	Reason	Required Action
Please connect the sensor	The App is not getting readings for electrical conductivity from the sensor. Either it's not properly connected or physically damaged	Try to connect the sensor as described in the manual and check for possible physical damage
Error	Reading is out of range	Check the physical condition of the sensor and cable. If it doesn't change, the sensor may be damaged/defective. Contact support

3.1.5 Email Excel® reading report

To download sensor readings from a Station:

1. click on the Station Menu icon
2. choose the "Email Excel Report"
3. fill in the email address(es) to which you want to send the report

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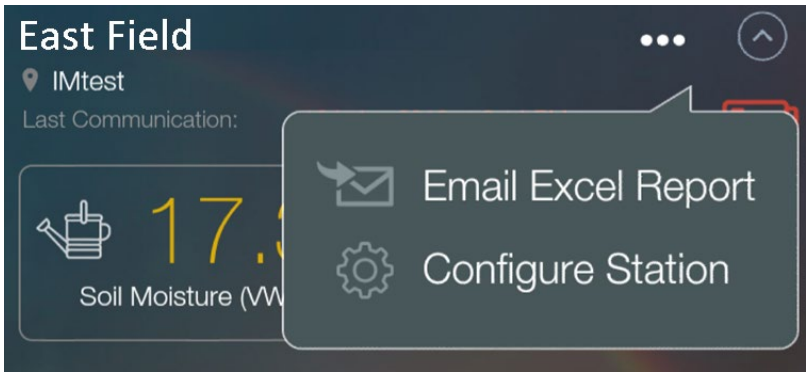


Figure 13: Email Excel report

3.1.6 Humidity Sensor reading

The Humidity Sensor is used to detect high humidity levels within the station enclosure, indicating a potential water penetration issue. Humidity sensor readings can be in green, yellow, or red depending on the status.

- humidity below 55% (humidity sensor icon will be green)
- humidity level between 56% and 74% (humidity sensor icon will be yellow)
- humidity level above 75% (humidity sensor icon will be red)
- humidity sensor reading outside of the sensor's normal operating range (humidity sensor icon will be red)

As a user, you will not receive notifications if the humidity sensor goes into the yellow, or red state; however, ConnectedCrops support staff will be warned of such situations and will reach out to you directly to assess the situation. The humidity sensor threshold values are not configurable by the end user through the CCMobile App.

3.1.7 Onboard Temperature Sensor readings

The Onboard Temperature Sensor is used to determine the temperature directly at the station. While this sensor is internal to the ConnectedCrops enclosure, the low heat output by the ConnectedCrops station components and the sleep state when the station is not transmitting data means this temperature should reflect the actual temperature of the outside conditions without any effects from wind, rain or snow.

The Onboard Temperature Sensor readings can be in green, yellow, or red depending on its status. The status is measured based on the thresholds you define. If not defined, CCMobile will use default thresholds defined during the sensor registration.

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The Temperature threshold setup, meanings and notifications are the same as an external temperature sensor as defined in section 3.1.4.

3.2: The Events Page

The **Events** page displays a list of events that have been generated for the station. An "event" is like a news feed of updates related to your Station's performance or sensor readings that have met or exceeded thresholds. If Alert Notifications have been enabled, you will have received an email or SMS message for each of these events. Pressing the down arrow beside an event will provide more in-depth information including the threshold that triggered the event.

The table below identifies the different type of events that may appear on the Events page.

Icon	Station Events	Icon	Soil Moisture Sensor Events
	Very low battery		Soil moisture reached wilting point
	Bad connection		Soil moisture reached field capacity
	New Firmware Update Scheduled		Soil moisture is getting close to wilting point
	Firmware was successfully updated		Soil moisture is getting close to field capacity
	Firmware failed to update		
	Station is running on high frequency		
Icon	**Temperature Sensor Events**	**Icon**	**Electrical Conductivity Sensor Events**
	Very low temperature		Critically High soil salinity
	Very high temperature		Soil salinity approaching critically high
	Temperature Inversion Alert		Soil salinity approaching critically low
			Critically Low soil salinity

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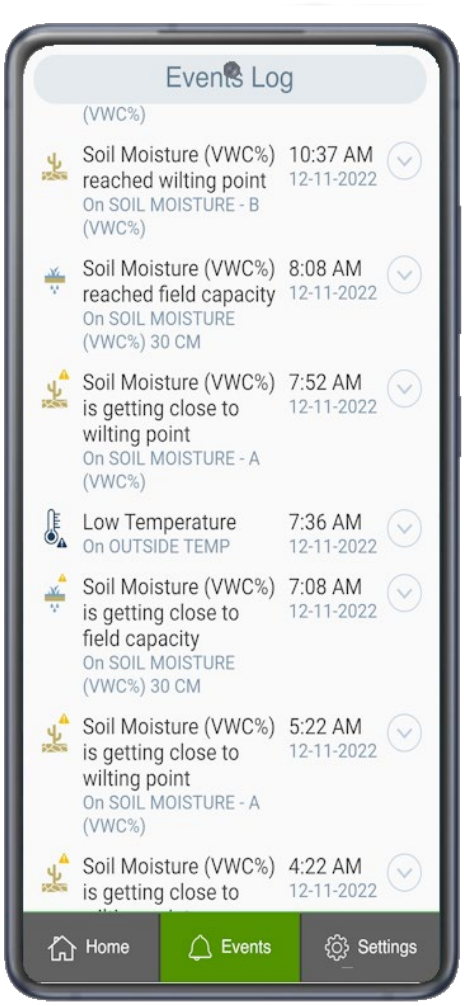


Figure 14: Events

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3.3: The Settings pages

The **Settings** page allows the user to make changes to the stations, or CCMobile App. Pressing the Settings button will bring a page with the following list of activities:

- Configure Station
- Add New Station
- Accounts
- Help
- About
- Logout

3.3.1 Configure Station

Selecting Configure Station will present the user with a list of the stations they have access to. Choose one of the stations from the list by pressing on the name of the station. Once selected the user will be presented with the page shown.

Selecting the ← button will return the user to the Station page.

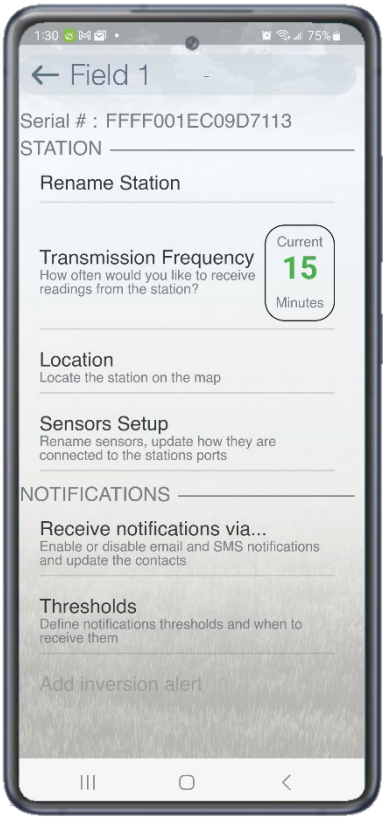


Figure 15: Configure Station

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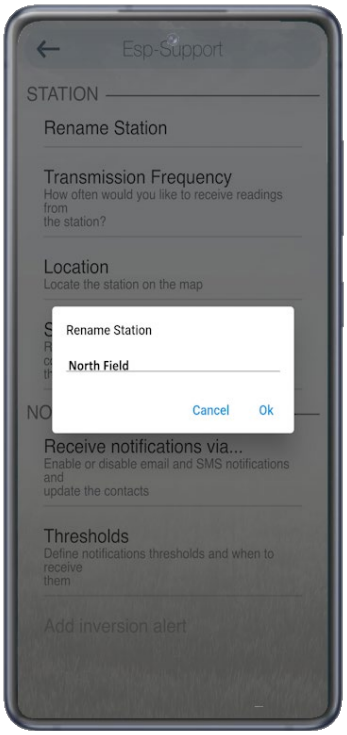


Figure 16: Rename Station

3.3.1.1 Rename Station

Selecting Rename Station allows a user to change the name of a station. This might be done if the station is being moved to a different location. Selecting OK will save the station's new name. Selecting Cancel will not save the station's new name.

3.3.1.2 Transmission Frequency

Selecting Transmission Frequency allows a user to change how often a ConnectedCrops station transmits sensor data to the ConnectedCrops Cloud and the CCMobile App.

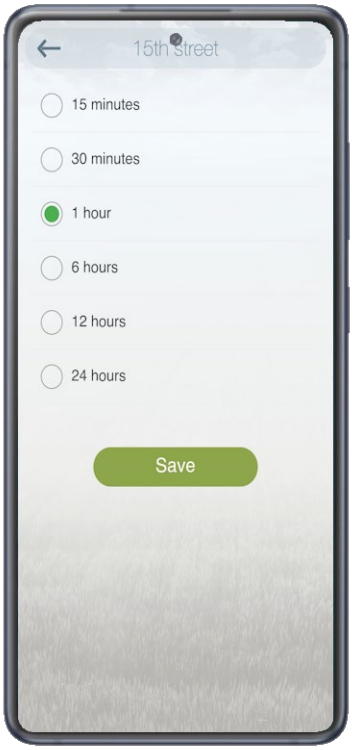


Figure 17: Configure Frequency

When setting the Transmission Frequency, consider how quickly the conditions you are monitoring can change. If your station is only monitoring soil moisture, soil moisture changes occur slowly so a less frequent transmission frequency will be acceptable (e.g., every 6 hours). If you are monitoring for temperature changes, these can occur more rapidly, and you may want to be alerted to temperature thresholds being reached quickly. This situation might require a higher transmission frequency like every 30 minutes.

Be aware that increasing the transmission frequency will lead to higher battery consumption. With bright, sunny days this will not be an issue but, for prolonged periods of cloud or rainy days, the solar panel may not be able to keep the battery charged.

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3.3.1.3 Location

Selecting Location allows the ConnectedCrops station to be located on the map view. Selecting Location for the first time will prompt the user to allow the CCMobile app to use the phone's geolocation service to find the precise location of the station. Allowing this service will simplify the map setup.

If a user declines this service (e.g., Don't allow) or needs to change the location after initially being set, they can still locate their ConnectedCrops station on the map. To do this, a user can use their finger to move the map until the green station pin is hovering over the correct farm/field location and then select the SAVE button.

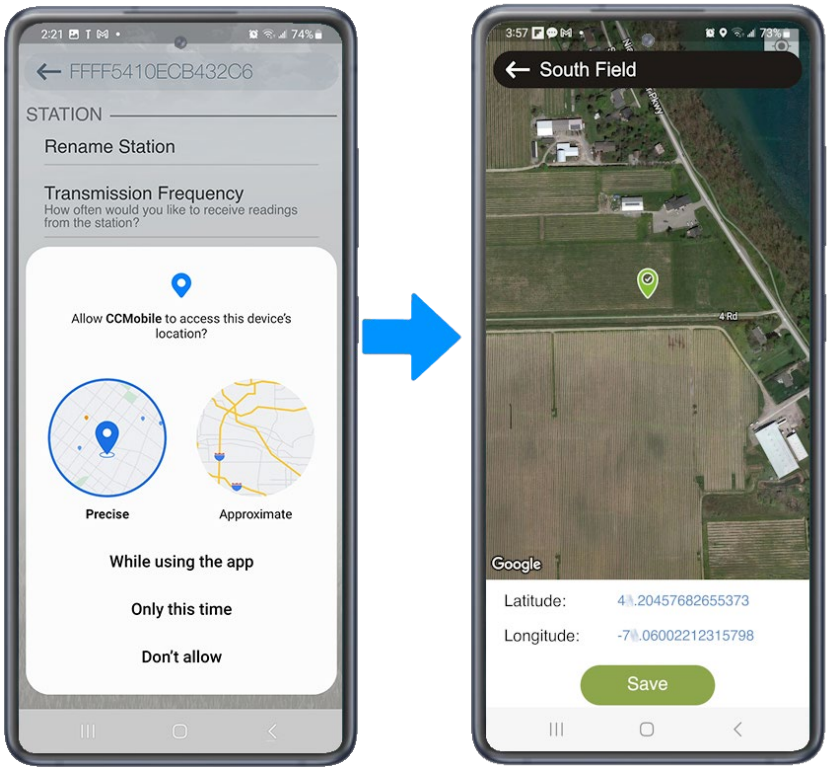


Figure 18: Location map

NOTE: A user can use the two-closing-fingers movement to zoom out and make the map resolution smaller. This will result in each single-finger map movement making the green station pin move further geographically. Using the two-expanding-fingers movement to zoom in can be used to precisely locate the green station pin.

NOTE: A user can manually enter the Latitude and Longitude values in their respective fields.

NOTE: If a user deletes all values in the Latitude and Longitude fields, 0 will be saved in each field.

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3.3.1.4 Sensors Setup

Selecting Sensors Setup allows the user to define the type of sensor connected to each port on their ConnectedCrops station. If no sensor will be connected to a port, set the sensor type radio button for that port to **None** to prevent the CCMobile App from displaying an error.

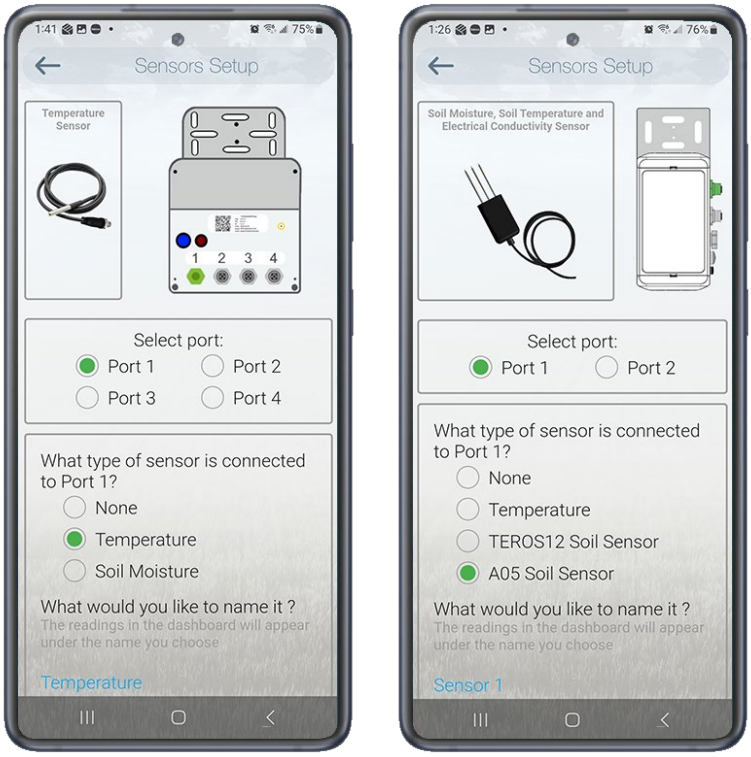


Figure 19: Sensors Setup page - Model 5 and Kernel6

You can also provide a meaningful name for the sensor so that when alert notifications arrive, you understand exactly which sensor is reporting the reading. This is especially important if there will be more than one sensor of the same type on the same station.

Press the Save changes to Port button before navigating to another port or returning to the previous page.

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3.3.1.5 Receive notifications via…

Selecting Receive notifications via… displays the page (**Error! Reference source not found.**) where a user can define how and when they would like to receive alert notifications.

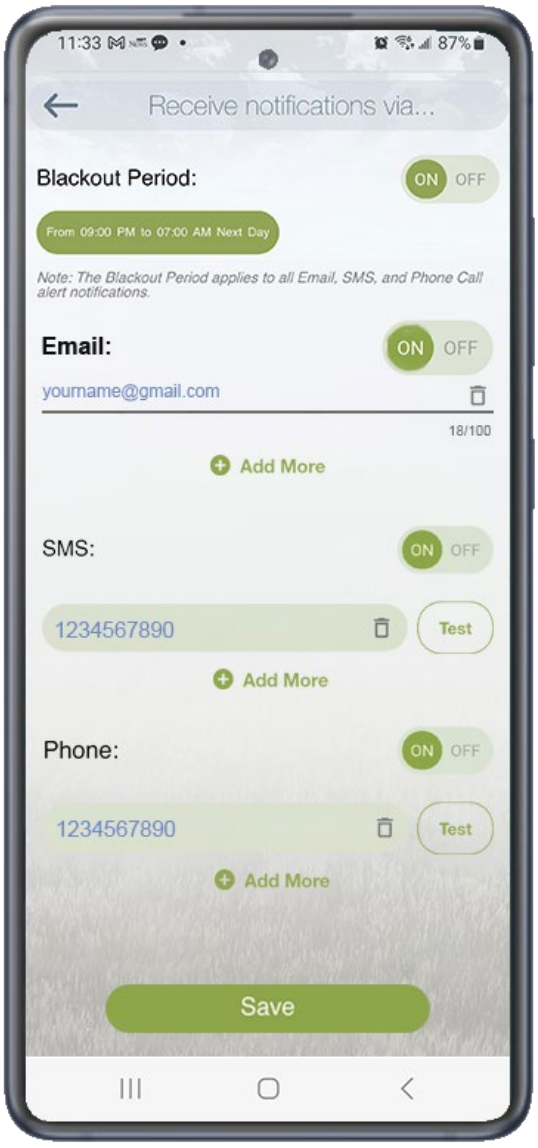


Figure 20: Alert Notifications

Blackout Period Configuration

A **Blackout Period** is a defined period when users will **not** receive email alerts, SMS text messages or Phone alerts for this station when sensor thresholds have been exceeded. With this feature, users can avoid being disturbed by email and SMS alert sounds or phone calls during sleep hours or other times they wish to remain undisturbed.

Only one (1) **Blackout Period** can be defined for a station, but each station can have a different Blackout Period.

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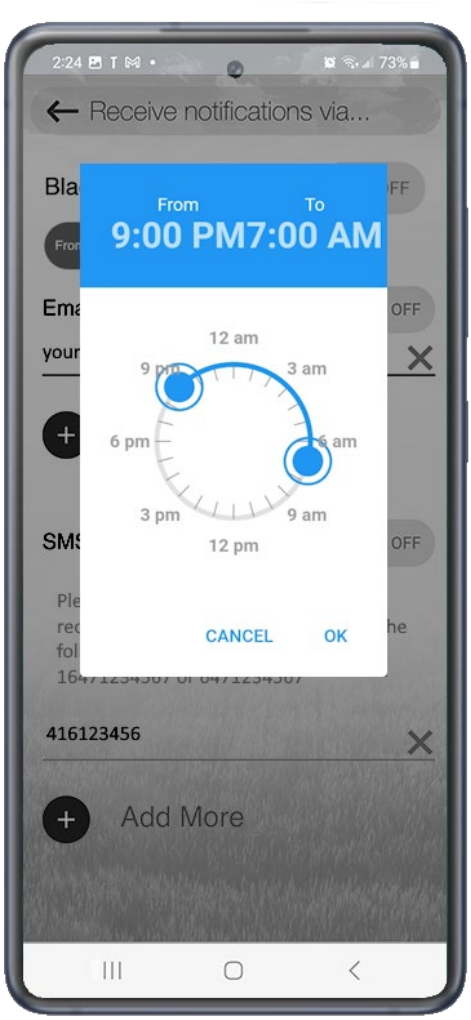


Figure 21: Blackout Period

- Moving the **Blackout Period:** slider to the ON position will display the Blackout Period popup page (Figure *21*). This popup allows a user to define a start and end time for the blackout period by moving the corresponding endpoints.
- Selecting the OK button will save the blackout period.
- The Blackout Period can be modified by selecting the green field underneath **Blackout Period:** header that contains the current Blackout period (**Error! Reference source not found.**), adjusting the times, and then selecting the OK button.
- To disable a Blackout Period, move the **Blackout Period:** slider to the OFF position

Email Alert

Moving the **Email:** slider to the ON position (**Error! Reference source not found.**) allows a user to enter one or more email addresses where alerts notifications will be sent when a sensor exceeds a defined threshold or when other important station events occur.

- Moving the **Email:** slider to the ON position will display a field to enter an email address
- Enter an email address ensuring the spelling is correct. The email address format is example@email.com. Each field holds one email address only
- You can add additional email addresses by clicking on the + Add More button and remove email addresses by clicking the Garbage Can (🗑) button beside the address
- To disable all Email alerts, move the **Email:** slider to the OFF position

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- If you don't receive an expected email alert, check your SPAM and Junk folders
- You can confirm if an alert was generated by looking in the list of events generated for this station (see 3.2: The Events Page above)

SMS Alerts

Moving the **SMS:** (Text Message) slider to the ON position (**Error! Reference source not found.**) allows a user to enter one or more phone numbers to which SMS messages will be sent when a sensor exceeds a defined threshold or when other important station events occur.

- Moving the **SMS:** slider to the ON position will display a popup field to enter a phone number (**Error! Reference source not found.**)

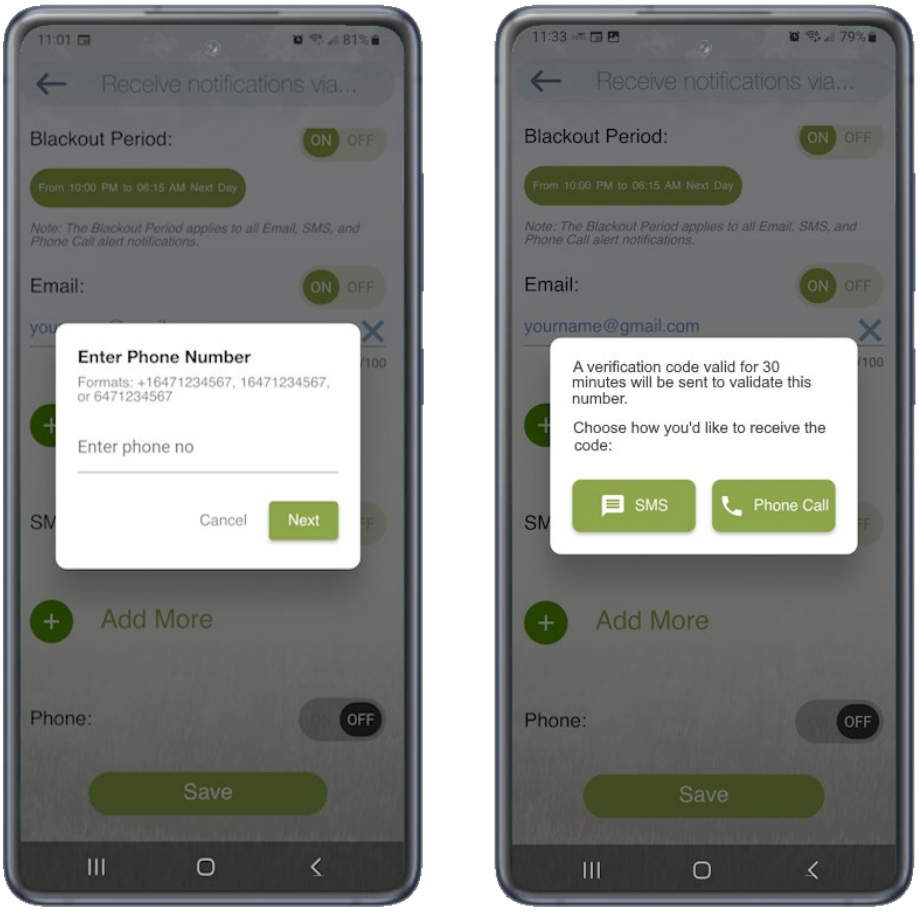


Figure 22: Validation Phone Number

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- Touching in the Enter phone no field will display the on-screen keyboard for entering the phone number
- Enter a mobile phone number in the popup. The phone number format must be all numbers, no spaces or characters, and only a "+" sign is allowed at the beginning. (e.g., +14161234567, 14161234567 or 4161234567). Click the Next button on the popup
- A popup will be displayed (**Error! Reference source not found.**) to validate the phone number being entered. Clicking on the SMS button will send a verification code via SMS to this number. Clicking on the Phone call button will result in a call to the number with the verification code

> NOTE: If the **Phone call** option is chosen, it may take several seconds after answering the call before the voice message begins and the verification code is provided. Please be patient.

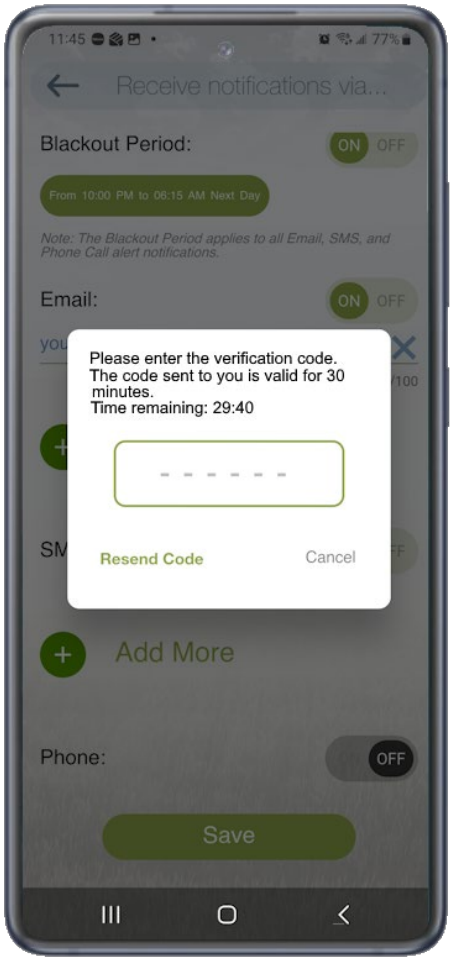


Figure 23: Enter Verification Code

- After clicking on the SMS button or Phone call button, a new popup will be displayed (Figure 23)
- Touching in the code box field will display the on-screen keyboard for entering the validation code provided. When the 6th digit of the validation code is entered, the screen will automatically return to the **Receive notifications via …** screen (**Error! Reference source not found.**)
- The validation code is valid for 30 minutes
- Click on the Save button at the bottom of the screen
- You can add additional mobile phone numbers by clicking on the + Add More button
- You can remove a phone number by clicking the Garbage Can ( ) button beside the number
- You can test that an SMS will be delivered to this phone number by clicking on the Test button beside the number

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Phone Call Alerts

Moving the **Phone:** slider to the ON position (**Error! Reference source not found.**) allows a user to enter one or more phone numbers to which a phone call will be placed when a sensor exceeds a defined threshold or when other important station events occur.

- Moving the **Phone:** slider to the ON position will display a popup field to enter a phone number (Figure 20)
- If the SMS section has one or more phone numbers configured, the **Enter phone no** popup message shown in Figure 22 will all display an additional button: Copy Numbers from SMS (Figure 24). Pressing this button will automatically add all phone numbers in the **SMS:** section to the **Phone:** section list without validation
- Touching in the Enter phone no field will display the on-screen keyboard for entering the phone number
- Enter a mobile phone number in the popup. The phone number format must be all numbers, no spaces or characters, and only a "+" sign is allowed at the beginning. (e.g., +14161234567, 14161234567 or 4161234567).
- Click the Next button on the popup
- A popup will be displayed (**Error! Reference source not found.**) to validate the phone number being entered. Clicking on the SMS button will send a verification code via SMS to this number. Clicking on the Phone call button will result in a call to the number with the verification code
- After clicking on the SMS button or Phone call button, a new popup will be displayed (Figure 23)
- Touching in the code box field will display the on-screen keyboard for entering the validation code provided. When the 6th digit of the validation code is entered, the screen will automatically return to the Receive notifications via … screen (**Error! Reference source not found.**)
- The validation code is valid for 30 minutes
- Click on the Save button at the bottom of the screen
- You can add additional mobile phone numbers by clicking on the + Add More button
- You can remove a phone number by clicking the Garbage Can ( ) button beside the number
- You can test that a phone call will be sent to this phone number by clicking on the Test button beside the number

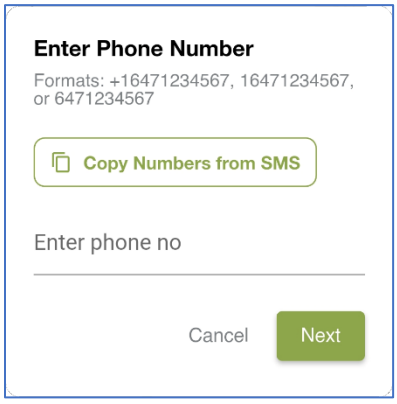


Figure 24: Copy Numbers from SMS

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Important Notes and Hints for SMS and Phone Call Alerts

1. Single ConnectedCrops Phone Number:

   All SMS (Text) messages and Phone Calls will come from a single phone number. When you receive your first SMS or phone call from ConnectedCrops, we suggest you add this number to your phone's contact list under the name ConnectedCrops. This will ensure that future SMS messages or phone calls are easily identifiable.

2. The Do Not Disturb phone feature:

   By default, your phone will not allow phone calls to ring during the times defined by your phoned **Do Not Disturb** feature. If you want to receive phone call alerts from ConnectedCrops while your **Do Not Disturb** is active on your phone (e.g. to be woken by a phone call If a frost event is occurring), add the ConnectedCrops contact created in the step above to your allowed list in your phone's **Do Not Disturb** settings (consult your phone's manual for steps to perform this)

   You can test the phone call delivery during the **Do Not Disturb** time period by pressing the Test button beside your phone number in the **Phone:** section of the Receive notifications via … screen (**Error! Reference source not found.**).

3. Blackout Period and Do Not Disturb:

   If you have a Blackout period set for a station, no emails, SMS messages or Phone Calls will be generated during this period. If you want to receive alerts during your Do Not Disturb period, you must disable the Blackout period functionality on the Receive notifications via … screen (**Error! Reference source not found.**).

4. Adding phone and SMS numbers for other people:

   You can enable other people involved in managing your farm to receive email, SMS, and phone alerts, even if they do not have the CCMobile App installed on their phones. Simply add their email address or phone number(s) on the **Receive notifications via …** screen.

   For SMS or phone alerts, you will need to coordinate with these users if they do not have the CCMobile App. They will receive the validation codes by SMS or phone call and must provide the codes to you before the 30-minute validation period expires.

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5. Validating SMS and Phone numbers:

The CCMobile App recognizes phone numbers for your farm that have already been validated and will not ask you to validate them again. For example:

- If a user's phone number is already configured to receive SMS messages for a station and the user is later added to the list of users who will receive a phone call, adding the phone number to the **Phone:** list will not require additional validation.
- If a user's phone number is already configured to receive SMS messages or phone calls for a station, adding the same phone number for SMS or Phone notifications on another station will not require additional validation.

If a user's phone number was previously validated but that number has been removed from all stations, then adding it back to any station's SMS or Phone list will require the phone number to be validated again.

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Monthly Reports

On the Receive notifications via… page, a user can also define the months that they would like to receive a monthly sensor report for this station. The monthly report provides a chart showing the sensor readings for the past month in PDF format. It also includes the raw sensor data in Excel® format so users familiar with Excel can perform their own spreadsheet data analysis.

To enable receiving monthly reports (Figure 25):

- move the **Monthly Report:** slider to the ON position
- select the checkboxes beside the months you would like to receive a report
- Click on the Save button at the bottom of the screen
- To disable a Monthly Reports, move the **Monthly Report:** slider to the OFF position

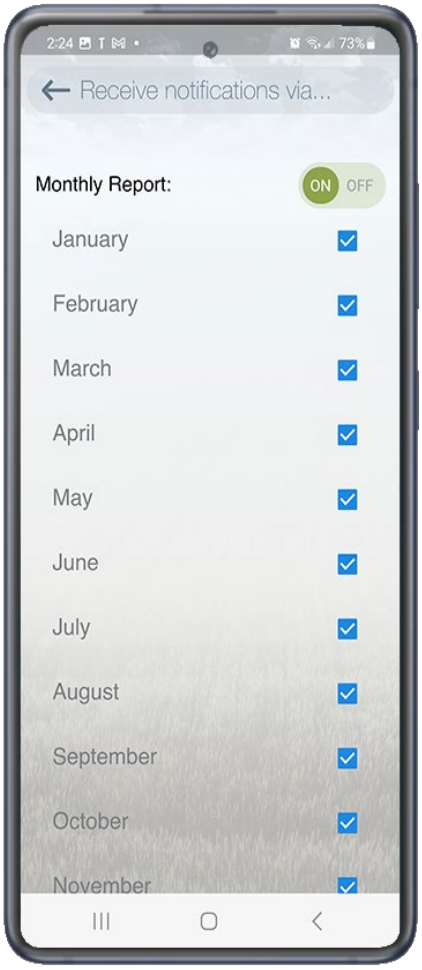


Figure 25: Monthly Reports Configuration

NOTE: For all changes made on the Receive notifications via… page, ensure you press the Save button on the Receive notifications via… screen before returning to the previous page.

NOTE: Monthly Reports will only be sent to email addresses listed under **Emails:**. If no email addresses have been provided, the Monthly Report will not be sent even if the feature is enabled

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3.3.1.6 Thresholds

Selecting Thresholds allows a user to define specific sensor thresholds for each sensor connected to the station. These thresholds will be the triggers for receiving Alert Notifications from ConnectedCrops.

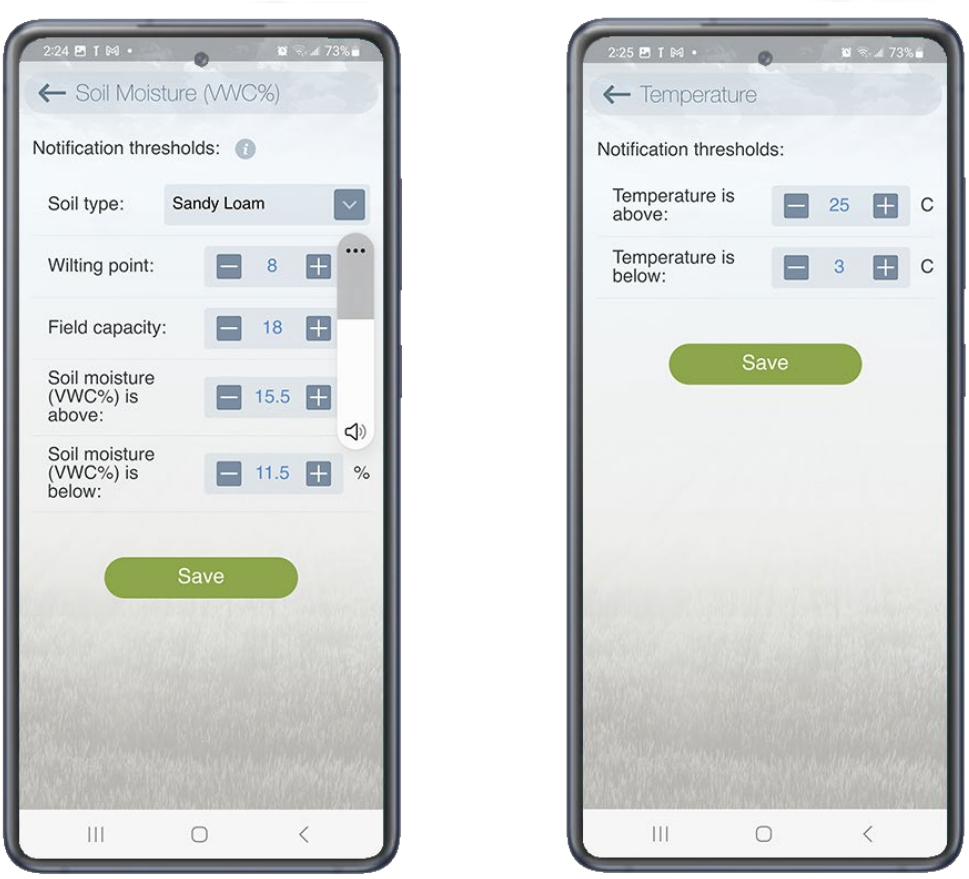


Figure 26: Sensor Thresholds

Soil Moisture

Soil Moisture thresholds can be set for:

- Field Capacity
- approaching Field Capacity (Soil Moisture (VWC%) is above:)
- approaching Wilting Point (Soil Moisture (VWC%) is below:)
- Wilting Point

These 4 thresholds are the soil moisture readings at which an alert will be sent via email, SMS and/or Phone to those people defined in the Receive notifications via….

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Soil Moisture characteristics are dependent on the type of soil that is being monitored and the type of crop being grown. When the user selects a soil type from the dropdown list, default values for the Field Capacity, Wilting Point, and the two Approaching thresholds will be populated.

Field Capacity is the amount of soil moisture (or water content) remaining in the soil after excess water has drained due to gravity and the downward movement of water has decreased. It represents the maximum water the soil can hold against the force of gravity. In the field, this typically occurs 2–3 days after a rainfall or irrigation event. Field Capacity can also be measured in a laboratory. It is highly dependent on the type of soil, where clay soils can retain a high amount of moisture for a longer period, while sandy soils, due to their larger pores, hold much less moisture. Any additional rain or irrigation beyond Field Capacity cannot be retained by the soil and will be lost as runoff.

The soil type chosen on the Thresholds page will automatically populate a Field Capacity VWC% value. This value comes from laboratory and field research for the different types of soils, and ConnectedCrops team recommends keeping this default value unless you have performed your own measurements that indicate a different value should be used for your soil.

Wilting Point (or Permanent Wilting Point - PWP) is the point at which the soil contains so little moisture—and holds it so tightly—that plant roots are no longer able to absorb it. As a result, the plant is deprived of both water and essential nutrients, leading to wilting that cannot be reversed without additional water. While the Wilting Point VWC% value is typically determined through standardized laboratory procedures for each soil type, it's important to recognize that other factors also influence this value, —most notably, the type of crop and the effectiveness of its root system in extracting moisture. Therefore, users may wish to adjust the default Wilting Point VWC% based on more specific or accurate data available for their specific crop and soil combination.

Approaching Field Capacity (Soil Moisture (VWC%) is above:) is not a scientific value but rather a recommended warning threshold. If you were irrigating when this alert is received, it means you should consider stopping your irrigation in this field.

Approaching Wilting Point (Soil Moisture (VWC%) is below:) is not a scientific value but rather a recommended warning threshold. If you receive this alert, it means you should consider starting irrigation in this field unless you are aware of a significant rain event in the very near future.

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Temperature

Temperature thresholds can be set for:

- Temperature is above
- Temperature is below

These 2 thresholds are the temperature readings at which an alert will be sent via email, SMS and/or Phone to those people defined in the Receive notifications via….

Salinity (Electrical Conductivity)

Salinity thresholds from the Electrical Conductivity sensor can be set for:

- Critically Low EC
- EC is below
- EC is above
- Critically High EC

These 4 thresholds are the salinity readings at which an alert will be sent via email, SMS and/or Phone to those people defined in the Receive notifications via….

3.3.1.7 Alert Notifications and Weather Forecasts

When sensor thresholds are set (section 3.3.1.6) AND Email alerts and/or SMS/Phone messages have been enabled and configured (section 3.3.1.5 Receive notifications via…), the user will receive email, SMS and/or Phone alerts when a sensor threshold has been exceeded.

Each message will contain:

- the name of the station
- the name of the sensor
- the date when the message was generated
- the sensor reading
- the values of the relevant thresholds for this sensor

In addition, a weather forecast link is provided at the bottom of the email, specific to this station's specific geographic location.

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The weather information can be helpful when making decisions to address the root cause of the alert received. For example,

1. Will temperatures continue to fall and do I need to take steps to mitigate against frost damage?
2. If my soil moisture is low, am I expecting rain in the next 24 to 72 hours?
3. Will high winds and high temperatures cause soil moisture to decrease more quickly, and should I irrigate sooner than scheduled?

IMPORTANT: To receive weather forecast information, valid latitude and longitude values must be entered for the station.

3.3.1.8 Add inversion alert

A temperature inversion occurs when the air near the ground is cooler than the air above it. Recognizing when inversions are present is crucial for making informed decisions about crop spraying and for taking steps to prevent frost damage.

The Add inversion alert page allows a user to:

- Identify the temperature sensor positioned highest above the ground (**Sensor at the top**)
- Identify the temperature sensor positioned closest to the ground (**Sensor at the bottom**)
- define the differential between the two (2) temperature sensors

When the temperature reading from the sensor in the **Sensor at the top** field is higher than the temperature reading from the sensor in the **Sensor at the bottom** field, an alert will be generated. If Email and/or SMS are enabled and properly configured, the user will receive a notification.

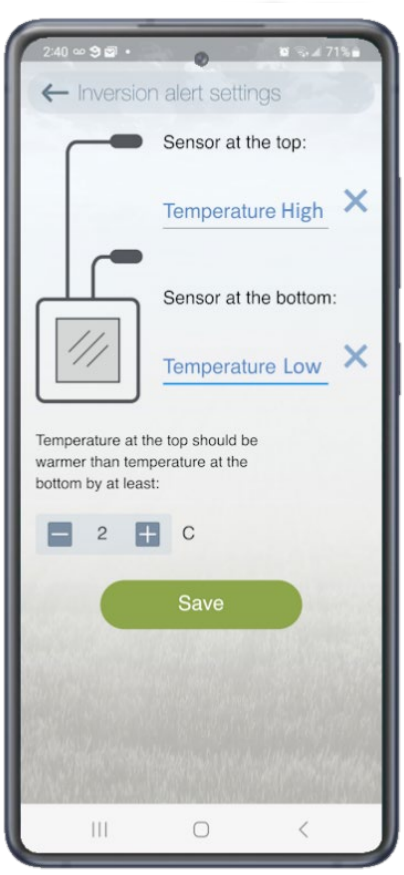


Figure 27: Temperature Inversion

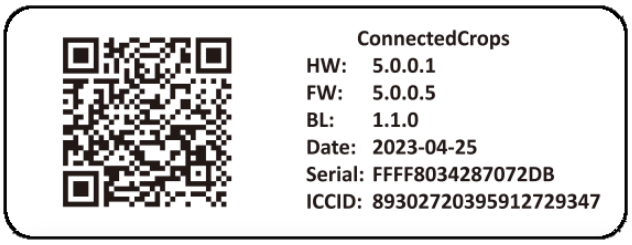
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NOTE: The Add inversion alert selection is only available if your station has at least 2 temperature sensors connected to it.

3.3.2 Add New Station

Selecting Add New Station will walk the user through the steps required to add a new ConnectedCrops station to their farm through the CCMobile App. These steps are identical to the steps followed when the first station was registered.

The label at the back of the Model 5 ConnectedCrops station provides the following information:



- **HW**: Hardware version
- **FW**: Initial Firmware version
- **BL**: Bootloader version
- **Date**: Manufacturing date
- **Serial**: Serial number
- **ICCID**: SIM Card Identification #

Figure 28: Model5 QR Code Label

The label for the Kernel6 station is on the side and has slightly different information but the procedures for adding a new station are the same.

The wizard in the CCMobile App will guide the user through the four steps for activating a Station:

1. **Registration:** Registering the station to ConnectedCrops Cloud
2. **Sensor Setup**: Setting up the sensors for each station; defining their types, names, and the ports to which they're physically connected on the station.
3. **Activation**: Powering up the station, or resetting it, and checking if CCMobile App receives the readings from the station
4. **Configuration**: Setting up the alerts, station's properties, and operation mode

3.3.2.1 Registration

This step registers the station to the ConnectedCrops Cloud using a name of your choice and its unique serial number:

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- press the Scan QR Code button to scan the QR code on the back of the station. You may be presented with a pop-up alert asking you to allow the CCMobile App to access your camera app. Please allow this to proceed
- if allowed, the phone's camera will automatically be launched
- scanning the QR code label will automatically populate all the registration fields
- in the **Station Name** field, enter a name that reflects the station's location. This will make it easier to manage if you're using multiple stations. (for example, "East Field")
- if you do not use the QR code or have issues with your camera, you may enter the details of the station manually. To do this, click on the arrow next to Type in the details manually and fill in the fields with the information displayed in the QR code label
- click the Register button at the bottom of the page

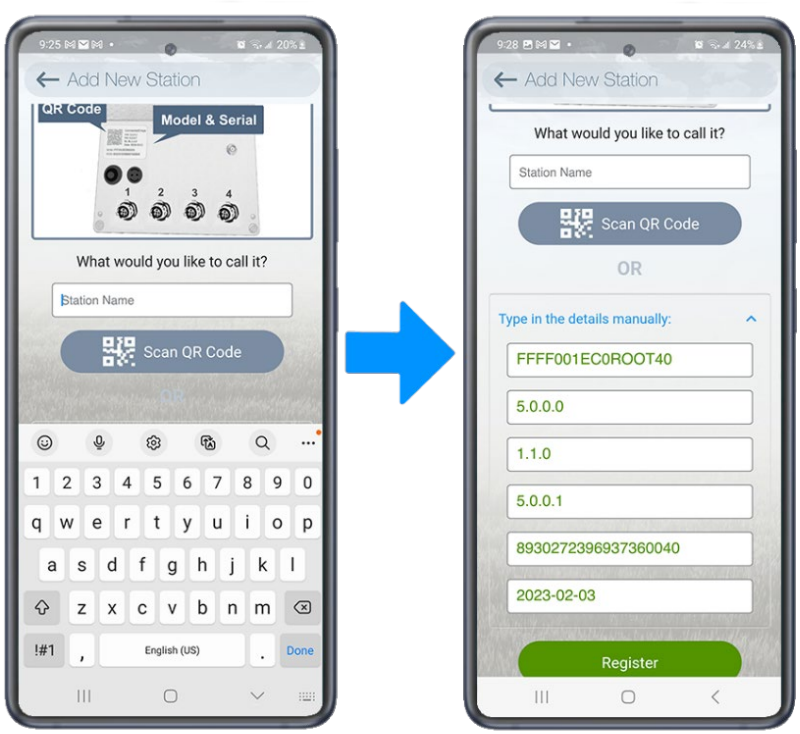


Figure 29: Step 1 - Registration

- if the registration process is successful, the CCMobile App will display the message **Station was registered successfully to the system. Let's get the readings!** Press the OK button and proceed to the next step of the registration process
- if you receive the message 'Station was already registered', it means the ConnectedCrops Cloud believes this station is already connected. If this occurs, email support@connnectedcrops.ca and provide the Serial Number, and we will assist in identifying the issue

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NOTE: If you DENY access to your phone's camera, you must manually type in the registration information from the QR Code label on the back of the station.

3.3.2.2 Sensor Setup

This step of the registration process will define what types of sensors are connected to the station and to which ports.

- the Port 1 radio button is selected by default. Select the radio button with the type of the sensor which is connected (or will be) connected to that port
- a default name will be provided for the sensor, but you can provide a sensor name that better reflects the sensor use or location (Ex. Soil Moisture at 8" or Temp at fruiting zone)
- click Save changes to Port 1 button to save and move to the next port
- you will receive the popup message **Sensor in Port 1 is configured!** Press the OK button on the popup
- repeat these steps to set up the remaining ports on the station. If one or more ports on the station will not have sensors attached to them, leave the radio button for these ports set to None

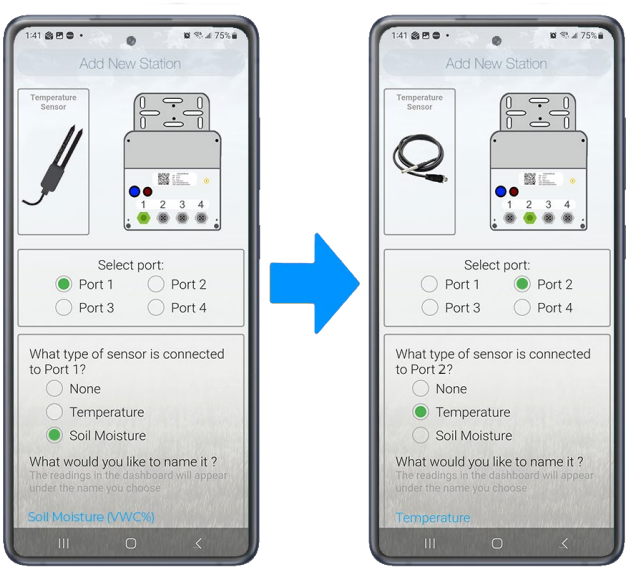


Figure 31: Step 2 - Sensor Setup - Model 5

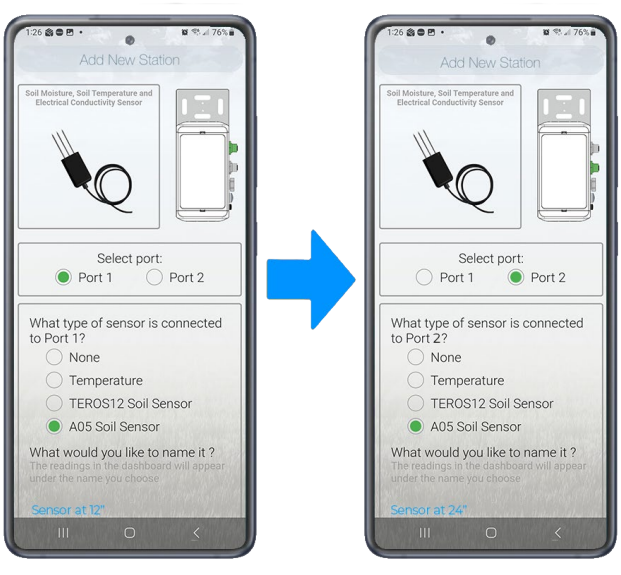


Figure 30: Step 2 - Sensor Setup - Kernel6

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3.3.2.3 Activation

This step of the registration process will activate the station to start the data collection process.

For Model 5 Stations

- make sure that you are in an area that has good mobile coverage
- If not already connected, connect the antenna to the back of the station
- If not already connected, connect the sensors to their correct ports
- If not already connected, connect the fuse
- If the fuse was already connected, press the Reset button on the back of the station
- press the Next button on the CCMobile App
- a countdown timer will be displayed as the station starts up (if the fuse was just inserted). If the communication link between your station and the ConnectedCrops Cloud is established, sensor readings from the station will be sent to the cloud and the mobile app will retrieve this information from the cloud
- if you get an error message, check the listed steps to guide you through solving the issue. Then, using your finger, pull the page down to refresh and try getting the readings again.

  You can also press back arrow ← button and press the Next button again to restart the process.

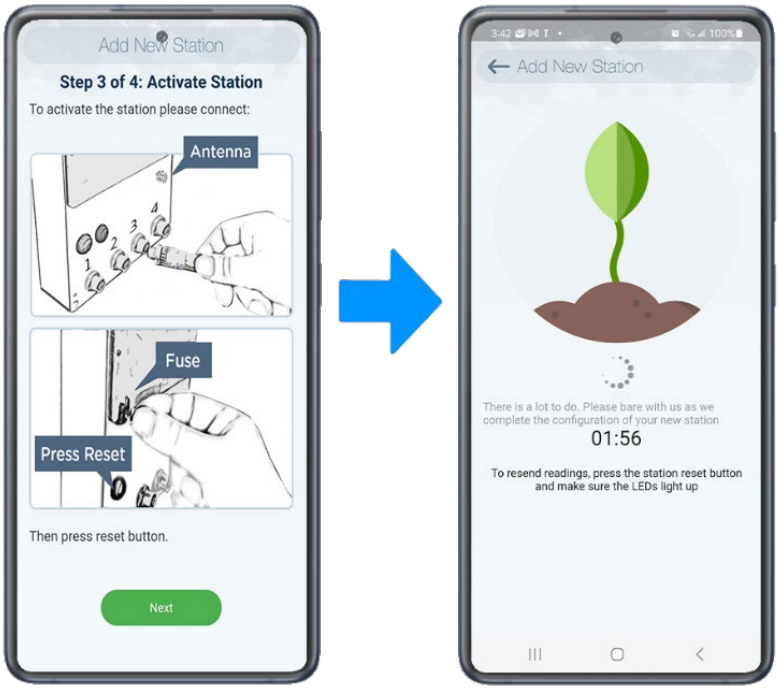


Figure 32: Step 3 – Activation – Model 5

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For Kernel6 Stations

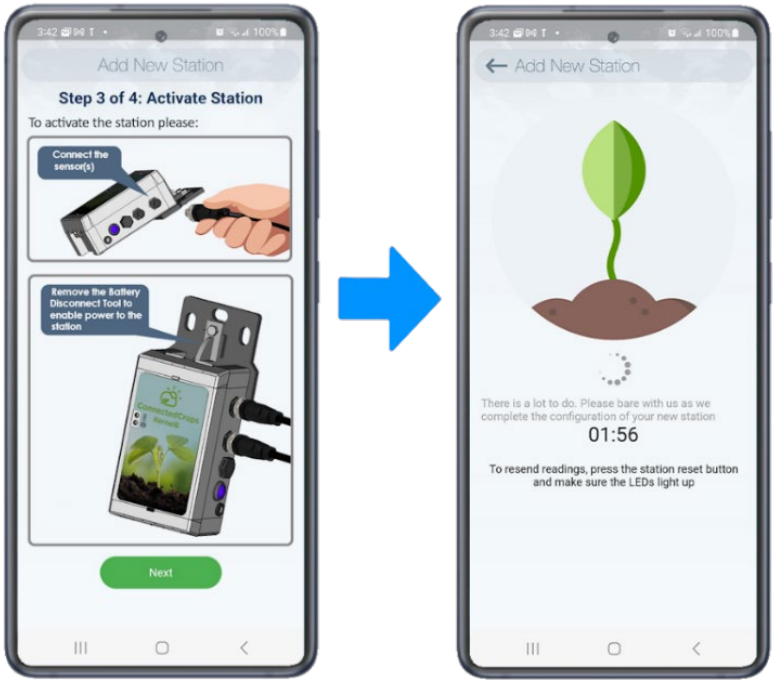


Figure 33: Step 3 – Activation – Kernel6

- make sure that you are in an area that has good mobile coverage
- if not already connected, connect the sensor(s) to the correct port(s)
- remove the Battery Disconnect Tool from the station mounting bracket
- press the Reset button on the side of the station
- press the Next button in CCMobile App
- a countdown timer will be displayed as the station starts up (if the magnet was just removed). If the communication link between your station and the ConnectedCrops Cloud is established, sensor readings from the station will be sent to the cloud and the mobile app will retrieve this information from the cloud
- if you get an error screen (Figure 33), check the listed steps to guide you through solving the issue. then, using your finger, pull the page down to refresh and try getting the readings again. You can also press back arrow ← button and press the Next button again to restart the process

Please check the troubleshooting section if you are facing issues while activating your station.

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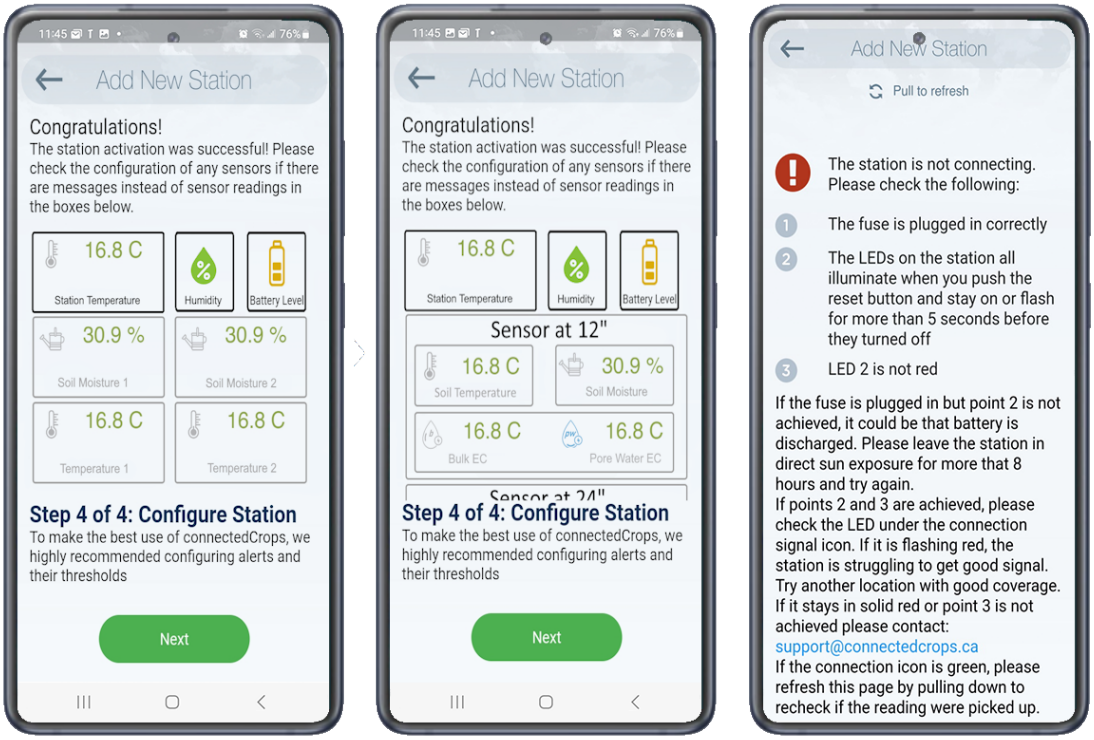


Figure 34: Step 4

- the ConnectedCrops team recommends you test the sensors before installing them in their in-field locations. For example, try to dip the temperature/soil moisture sensors in water and check the readings. Soil moisture should be close to 60%, and the temperature will depend on the water being hot or cold
- you can monitor the lights on the Station during the registration process to ensure the Station is working correctly:
    - the battery light should illuminate blue during the registration process indicating there is enough battery charge to transmit the data required for the process
    - the cellular signal light will transition from flashing on /off blue to continuous blue illumination during the registration process
    - the light labeled 1 will illuminate blue during the registration process and then extinguish unless there is an internal hardware failure
    - the light labeled 2 will illuminate blue during the registration process. If one or more of the sensor ports has been configured to have a sensor connected to it, but the sensor is not connected, this light will illuminate red.
      NOTE: the logic to determine the colour of the LED 2 light is a combined effort between the ConnectedCrops Cloud server and the station; therefore, it will take 2 complete communication cycles to for the LED 2 light to correctly determine what colour this LED light should be.
- once you receive the **Congratulations** page, your ConnectedCrops Station is now active and correctly communicating sensor data
- press the **Next** button to complete the registration process.

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3.3.3 Accounts

Selecting Accounts allows a user to perform 3 tasks:

1. change their password
2. change the name of their farm
3. delete their ConnectedCrops account

3.3.3.1 Change Password

Selecting Change Password will redirect the user to a ConnectedCrops Cloud webpage that allows the user to change their password. This page requires the user to remember their old password. If you've forgotten your old password, email support@connectedcrops.ca and the team will be able to change your password for you.

3.3.3.2 Change Farm Name

Selecting Change Farm Name allows the user to change the name of their farm.

3.3.3.2 Account Deletion

Selecting Account Deletion allows the user to permanently delete their ConnectedCrops account. This will delete all stations, sensor data, and user account information from the ConnectedCrops Cloud.

3.3.4 Help

Selecting Help displays a series of screen shots that briefly explain how to use the CCMobile App.

By scrolling past the last page on the Help page, a user can:

- click on the manual link to be taken to the ConnectedCrops web page where users will be able to download this **CCMobile App User Manual** in PDF format or display the manual in the phones default browser
- click on the FAQ link to be taken to the ConnectedCrops web page where they can browse through common questions or topics
- click on the support@connectedCrops.ca link where they can select an email application on their mobile phone and send an email to the ConnectedCrops support team

3.3.5 About

Selecting About displays the version information for the installed CCMobile App.

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3.3.6 Logout

Selecting Logout will display a prompt to confirm that you wish to log out of the CCMobile App. By selecting Yes, the user will be logged out. The next time the CCMobile App is launched, the user will be required to log into the app.

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4: CONSIDERATIONS WHEN UPDATING THE STATION CONFIGURATION

There are many scenarios in which making changes to your Kernel6's configuration settings may be desired or required. This section will describe the most common scenarios.

- Changing the type of sensor in a port
- Moving a station
- Increasing/decreasing the Transmission Frequency
- Changing a sensor's thresholds
- Changing who should be notified when sensor thresholds are exceeded
- Enabling/updating notification blackout periods

This section describes the considerations for each scenario and what steps should be taken.

4.1 Changing the type of sensor in a port

Many users switch from one type of sensor to another according to the period of the growing season. They may want two soil moisture sensors at different depths during the hot, summer months to help with irrigation decisions, but want to replace one with a temperature sensor during spring and/or fall for frost detection. The Kernel6 station is not moving anywhere, just a sensor is being changed. In this scenario:

1. In the CCMobile App, select Settings from the menu at the bottom
2. Select Configure Station and select the station
3. select Sensors Setup
4. Select the Port that will have the sensor changed
5. Select the sensor that this port will now have
6. If this type of sensor has been connected to this port before, you will receive the prompted in Figure 35

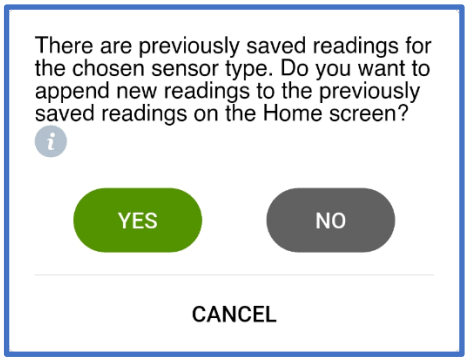


Figure 35: Restoring Archived Data

As this prompt indicates, readings for this type of sensor in this port have been recorded before. Answering this question requires an understanding of how your data is maintained by ConnectedCrops.

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Archiving and Restoring Data

Every time a sensor is changed in a port on the Sensors Setup screen, the CCMobile App will prompt the user if they want to save the sensor data that was previously recorded in this port. If the answer is yes, the data will be archived on the ConnectedCrops server. This archived data is tagged with:

- the name of the Kernel6 station
- the port the data came from
- the type of sensor that generated the data
- the current date.

You can think of this as a collection of data.

When a sensor is changed in a port, the CCMobile App also looks to see if there was older archived data for this type of sensor on this port previously. If it finds some, it will display the prompt in Figure 35. Pressing the Yes button to this prompt will restore this archived data, and new data collected from this sensor will be added to this collection of data. Pressing the No button will keep the older archived data, but will start a new, empty collection of data.

How should you respond? The answer depends on several factors.

If you know the Kernel6 station is in the exact same location, responding Yes and keeping this data in a single collection make sense. An example scenario might be the station is in the same location in the field but during different parts of the growing season you swap between soil sensors and temperature sensors. Keeping this data together will make it easier to report on difference in data from one year to the next.

If, however, the Kernel6 station has been physically moved, comparing the archived data to the new data gathered at a different location may not make sense. Soil conditions or field topographical may not be the same and a comparison of the two sets of data would not be valid and might lead to incorrect decisions. Understanding the history of this Kernel6 station, and if the old and new location are comparable, will guide you to the correct answer to this prompt.

NOTE: It is possible to have more than one collection of archived data for the same sensor type for this port. If this occurs, you will be prompted in the CCMobile App to select which archived data collection to restore.

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7. Select either Yes or No to the prompt to restored previously archived data
8. If Yes is selected and there are multiple data collections to choose from, select the radio button for the archived data you wish to restore
9. If you elect to restore data, you will receive a message indicating the data has been restored. Select the OK button
10. Select the arrow at the top of the screen to return to the Configure Station screen

NOTE: Receiving new sensor data after a sensor change

To receive data from the new sensor after a sensor change in a port, the Kernel6 station must go through 2 complete communication cycles. Depending on your Transmission Frequency, this could take some time. Since the grower is likely already standing in the field changing this sensor, the grower can speed up this process as follows.

After changing the sensor on the **Sensors Setup** screen in the CCMobile App:

- Press the Reset Button on the side of the Kernel6 to initiate a data transmission
- Wait for the data transmission to complete successfully (the LED lights have extinguished)
- Press the Reset Button a second time
- Wait for the data transmission to complete successfully
- Refresh the screen in the CCMobile App to see the update sensor data

4.2 Moving a station

When moving a ConnectedCrops station (either within a growing season or at the start of a new growing season) the same considerations for comparable data need to be made.

Minor Move within a field

If moving a station from one crop row to the next, it is likely the soil and topographical conditions are the same, and the user can simply move the station without making any changes in the CCMobile App.

Station moved within a field

If moving the station a significant distance within a field, the user must consider if the soil type, soil topography (slopes, hill tops, etc.) are likely to have a significant impact of the soil readings.

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If the answer to this is **Yes**, the user should rename the station to avoid confusion with archived data from the previous location. To do this:

Rename the station by:

1. In the CCMobile App, selecting **Settings** from the menu at the bottom
2. selecting **Configure Station** and selecting the station
3. selecting **Rename Station**
4. changing the station name and pressing the **OK** button

If the station is being moved, the user should also consider:

- if the type of sensor(s) connected to the Kernel6 is also being changed, the user should follow the steps in section **4.1 Changing the type of sensor in a port** (Settings > Configure Station > Sensor Setup)
- If the location of a sensor is also being changed (e.g., the depth of a soil sensor or the height of a temperature sensor), the user should also change the Sensor name (Settings > Configure Station > Sensor Setup)
- If the soil type is different in this part of the field, the user should change the soil type and notification thresholds (Settings > Configure Station > Thresholds)
    - Select the name of the Temperature sensor to adjust the **Above** and **Below** thresholds
    - Select the Bulk EC portion of a Soil Sensor to adjust the Critical Low, Below, Above and Critical High electrical conductivity thresholds
    - Select the Soil Moisture portion of a Soil Sensor to adjust the Soil Type, Wilting Point, Below, Above, and Field Capacity soil moisture thresholds
    - Select the Soil Temperature portion of a Soil Sensor to adjust the Above and Below soil temperature thresholds

Station moved to a different field

The steps to be performed in the CCMobile App when a Kernel6 station is being moved to a different field are the same when moving with a field. The station name should be changed to reflect the new location of the Kernel6 station and it more likely the user will need to change sensor names, soil types and thresholds to reflect this new location.

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4.3 Increasing/decreasing the Transmission Frequency

Growers can adjust a station's Transmission Frequency. Reasons to do this might be:

- How critical the data is during the growing season (e.g., temperature updates in the spring and fall for frost mitigation should be more frequent compared to the summer month)
- How fast the data the sensor is reading is likely to change (e.g. soil conditions change quite slowly compared to air temperatures)

Changing a station's Transmission Frequency is quite simple and is described in section 3.3.1.1 Rename Station but user should consider the impact on the station's battery. The more frequent the data transmission, the quicker the battery will deplete.

For a Model5 station that is solar powered, this will not be an issue during the summer months when there is plenty of sun to keep the station's battery fully charged. Consideration should be given for the communication during the winter months when there is less sun available for the solar panel.

For the Kernel6 station, which is battery powered, a more frequent communication period may result in the Kernel6 needing to be removed from the field during the growing season to be recharged. This is a simple and quick process, but the battery status should be monitored during the growing season, so the battery recharge process is performed before the battery is fully depleted and data is no longer being collected.

4.4 Changing a sensor's thresholds

Growers can change the thresholds for a sensor to adjust when email, SMS or phone alerts are triggered. Changing a sensor's thresholds is quite simple and is described in section3.3.1.6 Thresholds.

Soil Moisture Thresholds

The **Wilting Point** and **Field Capacity** thresholds for soil moisture are automatically set in the CCMobile App based on the chosen Soil Type defined on the Configure Station > Threshold screen. The thresholds for different soil types have come from extensive field and laboratory studies performed by university and research facilities around the world.

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How are Wilting Point and Field Capacity Thresholds determined?

Thresholds for Wilting Point and Field Capacity are based on water potential measurements; the amount of force a plant needs to exert to draw water form the soil. Wilting Point is defined as a water potential below -1.5 MPa. At this level, water is still physically present in the soil, but it is retained in the micropores and adsorbed onto the colloids with a force greater than the suction pressure of the roots. The plant is unable to overcome this tension and stops absorbing water. Soil at the point of permanent wilting isn't necessarily dry: there's water, but the soil holds it with a force that roots can't overcome. This is particularly evident in clay soils, where the volumetric water content can still be high while still being completely inaccessible to crops.

Field Capacity the amount of moisture remaining in a soil after excess water has drained away due to gravity, typically 1 to 3 days after heavy rain or irrigation. It is measured as a water potential above -33 kPa.

When the tested soil sample reaches these upper and lower water potential amounts, the amount of water in the soil is measured, with the result being the Volumetric Water Content (VWC%) for Wilting Point and Field Capacity. Volumetric Water Content is the ratio of the volume of water compared to the total volume of the soil sample.

The values provided in the CCMobile App are good starting points for the thresholds you will want to use.

The Wilting Point is not a binary condition. Plants begin to suffer from stress long before they reach the Wilting Point VWC% value and a grower needs to know long before the wilting point is reached to make decisions about when to irrigate. Similarly, overwatering occurs long before Field Capacity is reached. As a field get closer to field capacity, water runoff and nutrient leaching has already begun which can be damaging to the plant's health, as well as being a waste of precious and expensive water resources.

The CCMobile App also provides 2 other thresholds:

- Soil moisture (VWC%) is above:
- Soil moisture (VWC%) is below:

These thresholds allow a grower to enter VWC% threshold values, so they receive an alert from the ConnectedCrops station as they are approaching Wilting Point or approaching field Capacity.

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Setting the **Soil moisture (VWC%) is above:** and **Soil moisture (VWC%) is below:** thresholds will depend on:

- the type of irrigation system as grower is using
- the frequency of irrigation
- the soil moisture window the grower is trying to keep their crop in

While the Wilting Point and Field Capacity VWC% values are based on field and laboratory studies for various soil types, they do not consider the crops being grown. Some crops are very adept at extracting water from the soil, especially those with deeper root structures. Other crops are highly sensitive to water deficits and require very specific, attentive irrigation. A grower should also use this information to tailor the 4 soil moistures values to their unique needs.

4.5 Change who should be notified when a sensor's thresholds are exceeded

As farm operations change, a user may wish to add or remove users that receive email, SMS and/or Phone notifications when sensor thresholds have been exceeded. The instructions for making these changes are provided in section 3.3.1.5 Receive notifications via….

When adding new users, remember that adding users for SMS messages or Phone calls will require the phone number to be validated. Since the validation SMS or phone call will be directed to this user's phone, if they do not have the CCMobile App and are not performing this activity themselves, they will need to be aware and prepared to provide the validation code to the person adding this phone number.

4.6 Enabling/updating notification blackout periods

There are times when you absolutely need to receive notifications via email or SMS, and other times when you don't want them.

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When monitoring for frost conditions, a user needs temperature alerts immediately to make decisions about frost mitigation strategies, and these alerts will most likely occur in the middle of the night when temperatures are at their lowest.

On the other hand, frost is of little concern during the summer months, and soil moisture values change relatively slowly. Farm operators probably don't want a 3:00am soil moisture alert for something they'll deal with in the morning.

ConnectedCrops' Blackout period feature can be used to suppresses emails, SMS and Phone alerts between the specified Blackout times. While the alerts will not be sent out within this period, a user can still see at any time:

1. the current sensor readings on the **Home** screen in the CCMobile App
2. see an alert that occurred while the Blackout Period was in place by pressing the Events button at the bottom of the screen to show the threshold events that have been triggered

Here are some important considerations for configuring Blackout periods for a ConnectedCrops station:

1. a Blackout Period applies to all days of the week. It can not be configured for specific day or days of the week

2. A Blackout Period can not be designated for a specific sensor on a ConnectedCrops station. If you have a soil sensor and temperature sensor, the alerts for both sensors will be suppressed during the Backout Period

3. A Blackout period specified on a one ConnectedCrops station only applies to that specific station. You must add the Blackout Period to all your Kernel6 stations to block all notifications for this period

4. Even if you have the ConnectedCrops phone number added to your Do Not Disturb list so you can receive call when your phone is in its Do Not Disturb time period, you will not receive email, SMS or phone alerts if in an active Blackout Period

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5: Troubleshooting

Can't log in to the CCMobile App

If you experience trouble logging into the CCMobile App:

- check that you have a strong cellular or Wi-Fi signal and can connect to the internet. If your signal is weak, try moving to an area with better coverage or switch between Wi-Fi and cellular and try to login again
- if you've forgotten your password, please click on the Forgot your password? link on the CCMobile App log in page
- if you can't remember your username, please contact support@connectedcrops.ca and supply your name and the name of your farm operation. The ConnectedCrops support team will use the mobile phone number we have associated to your account to validate your identity and help reestablish your credentials.

For a more detailed list of Troubleshooting issues, please consult the User Manual for your ConnectedCrops station at https://connectedcrops.ca/manual/ .

6: Contact Us

At any time, feel free to contact us at info@connectedcrops.ca or tel:905-629-6654. For support, please email us at support@connectedcrops.ca or call us at tel:905-629-6659.

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