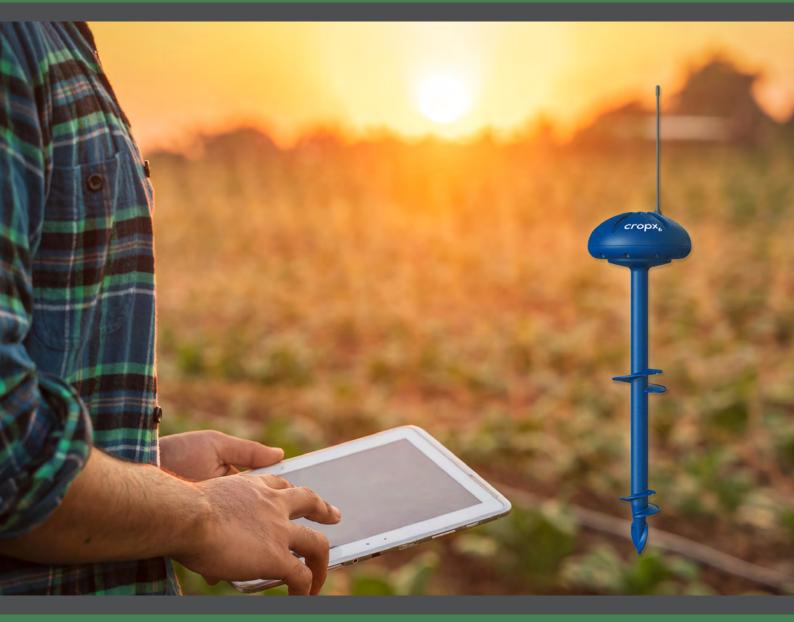
# CCODX SYSTEM INFORMATION







Phone: 07 3624 0300 Email: sales@rodneyind.com.au Web: www.rodneyind.com.au

# cropx

### ACTIVATING THE POWER OF TECHNOLOGY FOR AGRICULTURE

Digital farming solutions enable a future of food security on a healthy and thriving planet. Changing how we farm, on every farm, starts by delivering powerful agronomic value with solutions that are simple to use.

Whether you want to reduce inputs, or ensure your yields are protected from disease, CropX System offers a complete agronomic farm management solution for you.

Know exactly what your plant needs and when.



# **USE EVERY DROP WISELY**



#### **OPTIMISE WATER USE**

Effectively managing water in the crop root zone will improve water and nutrient use efficiency and visibility into changes in soil moisture leads to more precise irrigation control. Therefore, the irrigation management capability of CropX is continuously monitoring this data and providing insights and advice on irrigation activities.



#### **AVOID PLANT STRESS**

With the use of real-time data from soil sensors. CropX is able to provide predictive insights that allow growers to take proactive action prior to plants showing visible signs of stress. Growers know at all times if a field is at, above, or below optimal moisture levels.



#### SIMPLIFY IRRIGATION PLANNING

Make confident irrigation decisions, automate irrigation schedules and implement variable-rate irrigation to tailor your actions to the needs of each field.

Real-time data, advice, and automation accessed from desktop or mobile devices doesn't only save water and resources, it saves time – the valuable time of the field managers.



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# **CROPX SYSTEM INFORMATION**



# THE AGRONOMIC FARM MANAGEMENT SYSTEM

CropX Agronomic Farm Management System is an easy to use integrated hardware and software system that connects farm data, real time conditions and agronomic knowledge to provide guidance for successful and sustainable farming, while aggregating all agronomic farm data in one place for easy tracking and sharing.

CropX System aggregates data from in and around the farm and transforms it into useful information to help farmers monitor the health of fields and crops. The information is easy to access and provides a holistic overview of field conditions.

Insights and advice for performing irrigation, disease, nutrition and effluent management activities help users minimize the use of inputs while maximizing yields. It's so clear that you don't even need agronomic expertise to achieve great results.

Whether you want to reduce inputs, or ensure your yields are protected from disease, CropX System offers a complete agronomic farm management solution for you. Know exactly what your plant needs and when.

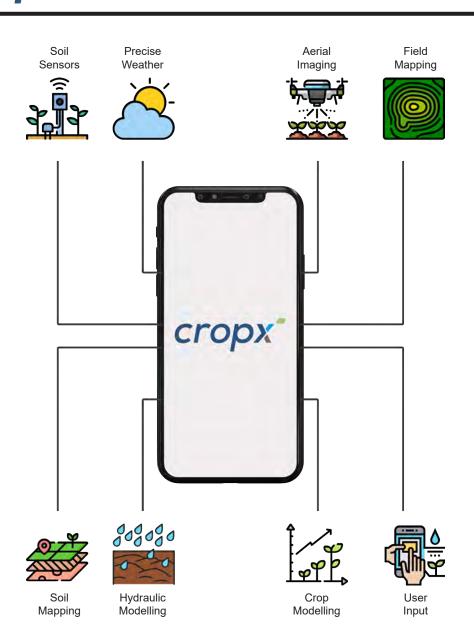


### EASY-TO-INSTALL, ACCURATE, DEPENDABLE HARDWARE

Data from below the ground is essential for providing accurate and predictable agronomic insights. Using sensors to capture data enables CropX to generate recommendations on what a plant needs before it starts showing stress.

- The unique spiral design of the soil sensor improves accuracy of soil data readings
- · Built-in telemetry and power source eliminates the need for an extra device
- Can be installed in less than 5 minutes

## **CROPX SYSTEM INFORMATION**



#### **COMPLETE AND ACCURATE DATA SETS**

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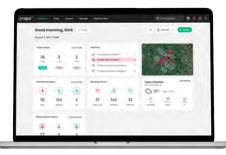
CropX collects, transforms, and activates complex data sets:

- Tested and validated proprietary crop models
- Machine data automatically imported through API connection
- Soil data, weather, topography, satellite data, and more

#### A SIMPLE YET POWERFUL DASHBOARD

- Quickly access key information and clear agronomic insights
- Customizable view for easy access to relevant data
- Ability to manage thousands of fields from one dashboard
- In-app communication between connected users and fields





## **CROPX SYSTEM INFORMATION**





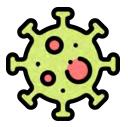
FIELD DATA MANAGEMENT Know to grow

CropX aggregates real time data to help farmers monitor the health of fields and crops.



**IRRIGATION PLANNING** Use every drop wisely

Know exactly when and how much water to apply. Save water and avoid crop stress.



**DISEASE CONTROL** Pro actively protect crops

Optimise spray timing by knowing exactly when, where and what to apply. Save costs while maximising protection.



**NUTRITION MONITORING** Ensure soil supports growth

Control costs while maximizing yields with this first-of-itskind solution for continuously monitoring salinity and nitrogen leaching.



**EFFLUENT IRRIGATION** Turn a problem into an asset

Allows farmers to turn animal waste into an asset that grown their pastures and crops while minimising runoff and leaching.



FARM DATA CONNECTIVITY Connect the dots

Connect thousands of data points from sources on and around the farm onto one platform.



TRACKING AND REPORTING Simplify traceability

With a click of a button, CropX will compile data in a report format for easy and comprehensive review.

# NOTES

NOTES



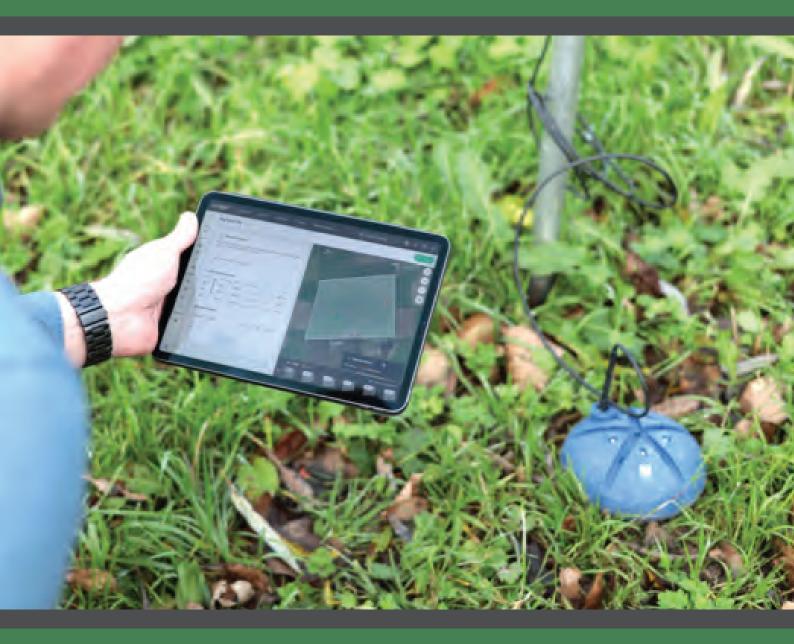

19 Valente Close Chermside QLD 4032 Phone: 07 3624 0300 Fax: 07 3624 0399 Email: sales@rodneyind.com.au Web: www.rodneyind.com.au







# SENSOR Installation guide





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# THANK YOU FOR USING EVERY DROP WISELY WITH YOUR CCODX SYSTEM

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# сгорх

# **CROPX** SENSOR INSTALLATION GUIDE

This manual provides step-bystep instructions for installing a CropX sensor in your field.

CropX'Pro'-Soilmeasurements at 8" & 18" (20 cm & 45cm)

\*\*Note: Prior to installing your sensor, you should complete your registration and set up your farms & fields.





## **CROPX INSTALLATION KIT CONTENTS:**

Item Description	Item image
Drill bit 'Pro': 0.7" X 21.6" (18 x 550 mm) 'Deep': 1.02" X 45.2" (26 X 1150 mm)	andinana
Handle	
Sensor head adapter	
CropX Sensor Installation Guide	Receiver SENSOR INSTALLATION GUIDE



## **SETTING UP**

- Visit CropX's knowledge base at https://cropx.com/knowledge-base/ or scan the QR code to learn how to get started.
- Go to the Apple App Store or the Google Play Store, search for **CropX** Adaptive Irrigation, and download the app to your phone.
- Launch the CropX app by clicking on the CropX icon & create an account.
- If you have yet to add a new field, you may do so by clicking on the 'add a new field' sign at the first screen and following the instructions.
- By clicking on one of the fields you've created, if no sensors re currently installed, a link to install your sensor will appear. Click on it to go to the interactive installation guide that will guide you through the installation process.



\*\*Note: Allow the system to use your mobile devices Bluetooth & location Services when prompted.

## **SENSOR INSTALLATION**

Although sensors are shipped with fully charged batteries that should last the whole season, we recommend charging your batteries for 10 hours prior to installation, using the USB cable provided (see charging instructions on the last page).

Please ensure you have the following for installation:

- Sensor(s);
- CropX Installation Kit;

#### Customer to provide:

- A smartphone;
- ½" cordless drill, minimum 18V (fully charged);
- Container filled with 2L of water for each sensor
- •

### **INSTALLATION RECOMMENDATIONS**

For optimal sensor installation and accuracy, it should be installed:

- In moist soil, preferably around field capacity
- Within the zone outlined on the map
- In a location in the field that best represents the crop (between the plants, in average plant density)
- In a flat surface, with no slope, no ditch or cracked soil
- Away from the tractor and pivot wheel tracks
- In a uniformly planted area
- · Several inches from an active emitter, if your crop is surface or sub-surface drip irrigated



### PLEASE BE MINDFUL OF THE FOLLOWING

- Remove any leaves or straw from the installation site Do not apply downward force
- Do not screw the sensor all the way down to the soil surface (leave a 1-finger gap)
- Do not damage the sensor antenna

## **TO INSTALL THE SENSOR**

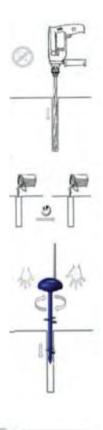
- Drill a vertical hole in the soil using your drill and the provided drill bit. If necessary, drill and retract several times until the bit reaches the full depth.
- Pour water slowly into the hole until it's full, wait 5 minutes and then top off the hole with more water until it's full. Wait 5 more minutes and if the soil is dry, add more water.

\*\*Note: Try not to pour water outside of the hole as much as possible.

Insert the sensor into the hole and screw it gently with both hands, until it stands firmly in the ground. Do not apply downward force. Ensure there is no debris (plants, leaves, etc.) caught on the sensor during installation.

Mount the sensor head adapter in the grooves on top of the sensor head.

Mount the handle on the sensor head adapter and tighten it.







- Screw the sensor almost all the way down using the handle, leaving a 1- finger gap between the ground level and the bottom of the sensor head.
- •
- Remove the sensor head adapter from the sensor.
- Confirm that the antenna connections are tight, both the extension cable connection to the mushroom and the antenna itself.
- Set the antenna extension cable to a pole/peg such that the antenna is positioned above the maximum height reached by the plant canopy at the end of the growing season.

## **UNINSTALLING THE SENSOR**

It is recommended to uninstall the sensors at the end of each season, by completing the following:

- Bring the handle, the sensor head adapter, a 1/2 gallon of water and a shovel.
- Using the app, click on the sensor you wish to uninstall and a path between you and the sensor will be displayed. Go to the sensor.
- Ensure the soil is moist. It is recommended to wet the soil around the sensor both a day prior to uninstalling, and just before the uninstallation.
- Connect the sensor head adapter to the handle.
- Mount the sensor head adapter to the grooves on the top of the sensor head.
- Mount the handle on the sensor head adapter socket tool and loosen it counterclockwise.
- If you feel strong resistance from the sensor while trying to screw it out, pour water around the sensor area to soften the soil. You may use the shovel to dig around the sensor to further loosen the soil but make sure to keep a distance of at least a foot away from the sensor.
- After removing the sensor, keep the sensor in a safe and dry place and charge it prior to the next installation.

\*\*Note: In addition to the physical uninstallation of the sensor, it should also be deactivated from the App.





### **CHARGING THE SENSOR**

- Gently remove the 5 screws on top of sensor. Remove the charging socket cover.
- Connect the USB cable to the USB cable port (cable provided) and connect to a certified UL/CE USB power adapter.
- Allow the sensor to fully charge for at least 10 hours, until the light changes to blinking blue (this may
- take up to 24 hours, depending on the charging source). Before reattaching the charging socket cover, make sure the rubber sealing ring is in place and clean from dust &
- debris.

## **TECHNICAL DATA**

#### **Battery and Power:**

- Risk of explosion if battery replaced by an un-authorized personnel.
- Dispose used batteries according the local regulations.
- 3.7V/10.4Ah/38.48Wh (Two Li-Ion battery pack) Charging at: SVDC@ 2A max

#### Environmental grade:

CropX Pro/Deep sensors comply with outdoor grade IP68

#### Temperatures range:

• Storage range -4°Fto +140° F (-20°c to +60°c) Operating range 32°Fto +122°F(0°C to +S0°C)







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# **SENSOR INSTALLATION GUIDE**

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## **CONTACT US FOR SUPPORT**



Steve Walsh Sales & Business Development Manager - Queensland 0491 045375 | www.cropx.com | steve.walsh@cropx.com

#### Damien Heintze

Sales & Business Development Manager - Victoria 0418 227 178 | www.cropx.com | damien.h@cropx.com

#### RODNEY INDUSTRIES

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# NOTES




19 Valente Close Chermside QLD 4032 Phone: 07 3624 0300 Fax: 07 3624 0399 Email: sales@rodneyind.com.au Web: www.rodneyind.com.au

