



SoilCares Manual

Get started with your F-series
scanner



Content



This instruction manual will guide you through the process from setting up your user profile, entering the license to scanning your first sample.

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1. General Information Before Shipment



Quality check

All AgroCares Scanners undergo a quality check before they are shipped to the end user. The quality control is done by AgroCares support technicians to ensure that the Scanner you receive works properly and that the results it provides meet our accuracy standards. For example, they test Bluetooth connectivity, battery, parameters and calibration (cap).

Please note that this quality check requires scanning a real sample and as a result, some minor traces of use might be visible on your Scanner. We take great care to minimize these. After performing the quality check, the Scanners are cleaned thoroughly and carefully.

Please keep in mind that every AgroCares Scanner is handmade and constructed out of die-cast aluminum. Hence, no two Scanners will look precisely the same.

This scanner has passed the AgroCares quality control test

Fingerprints and soil/feed traces can sometimes be found on the Scanner and inside the box. These are the result of the final quality control test performed by the AgroCares technical team before Shipment.

Pre-shipment inspection is performed on every newly manufactured AgroCares product before they are shipped to the customer to ensure the absence of any hardware defects. This consists of unpackaging the Scanner, connecting Scanner to AgroCares mobile application via Bluetooth, scanning for calibration, and scanning samples of soil and/or feed five times to complete the order. If the order is successfully completed and the report is generated, the Scanner has passed the final Quality Control test and is ready for Shipment to the customer. This way, AgroCares guarantees that the Scanner meets our best quality standards. Quality Control tests are performed by AgroCares technical team and can result in spotting soil particles and fingerprints.

This scanner has passed the AgroCares quality control test

The AgroCares Scanner is used in combination with one of our mobile applications. A stable internet connection is required to log in, scan and synchronize your data. It is also possible to scan a sample without the internet and synchronize it later. Ensure you do not log out or close the app before synchronization is completed. This prevents the loss of your data.

2. Box Content

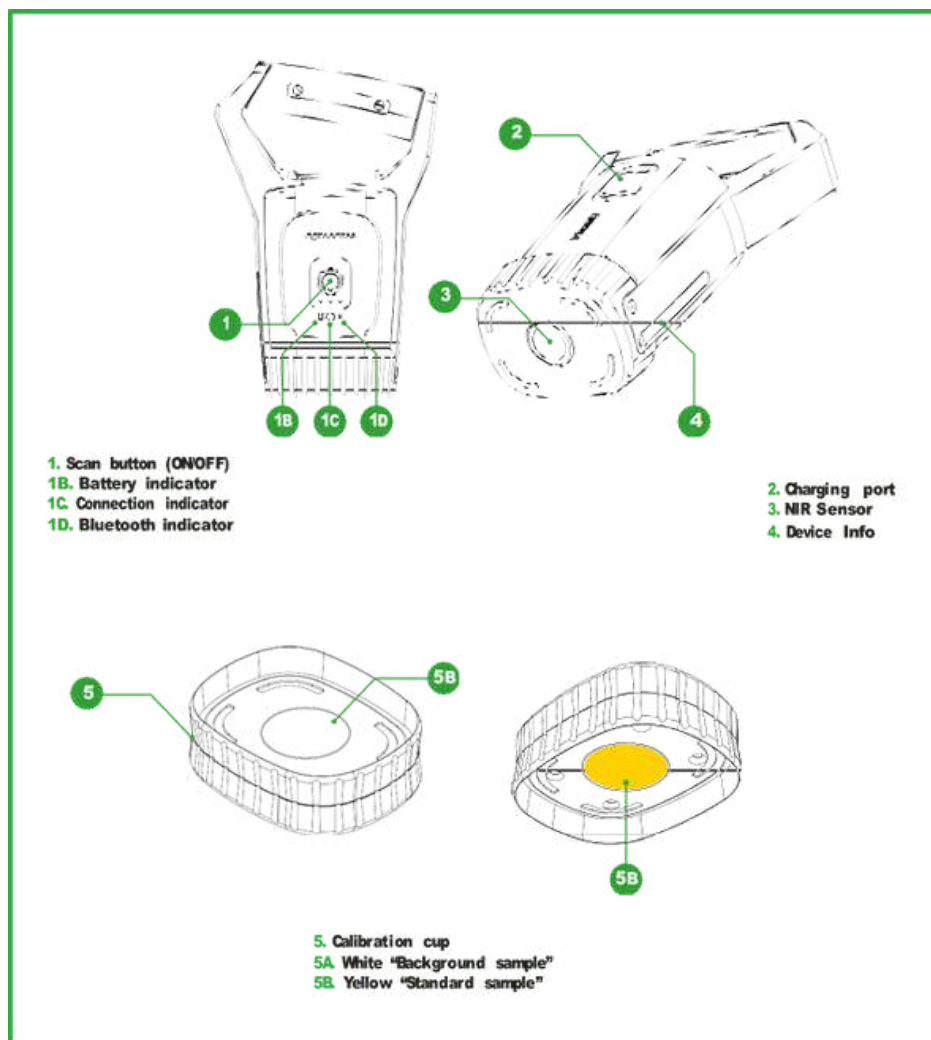


Your Scanner is delivered in a cardboard box including:

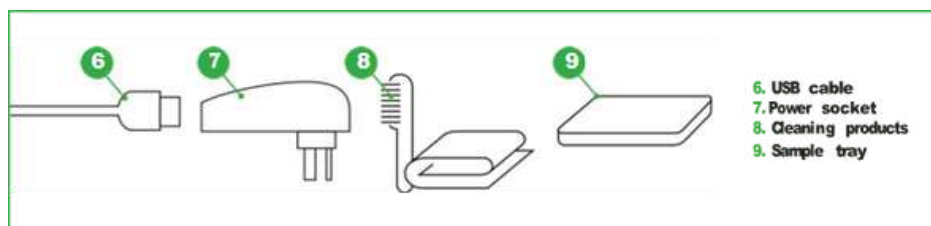
- The Scanner: The handheld unit that performs the scan

Calibration cap: For 'standard sample' and 'background scans' calibration

- Power socket (2): USB adaptor + international plugs type A and B
- USB cable: Charging and reset cable for the handheld device



- Cleaning products: Brush and cloth for cleaning the device
- Sample tray/cup: A tray/cup for scanning the soil sample



3. Preparing the Scanner



To maximize the lifespan of your Scanner, prepare it for use by following the steps below.

Charging instruction

Charge the battery by connecting the USB cable to the power socket and the charging port on your Scanner.

Due to IATA regulations for shipping batteries, it is not allowed to ship fully charged devices, please make sure you charge the Scanner till full charge. Please note the battery cannot be charged if the device temperature is too high. In this case, allow the device to cool down. The device should be charged at room temperature, not exceeding 30 °C/86 °F.

Battery indicator

Red blinking, 1x/1 s	Battery capacity < 4 % (device in power save mode)
Red blinking, 3x/1 s	USB PD charger not compatible
Green flashing, 1x/2 s	Charging (USB PD charger connected)
Green/red blinking, 1x/1 s	Battery level < 10 % (no USB PD charger connected)
Green blinking, 1x/1 s	Battery level < 30 %
Green	Battery level high
Off	Device off, no USP PD charger connected

For more information on the charging, you can consult our support page or contact the helpdesk: support@agrocares.com

Before first use or if the Scanner has not been used for more than four weeks, charge the Scanner till full charge.

Power usage

On a fully charged battery, the Scanner can perform around 5000 Scans/approximately 700 samples. For full recharging, the Scanner should be charged for about 3 hours (at European voltage 220V-240V).

Charge the battery every 3 months even if you are not using the Scanner, to avoid any damage to the battery.

4. Installing the Mobile Application



You can download the AgroCares Scanner Solution app from the App Store or the Google Play Store.



To use the apps, you will need a valid license key. The license key can be purchased from AgroCares webshop: <https://webshop.agrocares.com/license.html>

Smartphone requirements

Version 14 or higher for iOS and Android and an iPhone 6 or higher. To download the apps from the Play Store, your Google Play account should have a device certification. This certification can be found in the Google Play Store setting under 'Device certification'.

Once you have downloaded the app, it will request access to the images and location data of your device. The access is required to register the sample locations to connect to the correct database.

5. User Registration



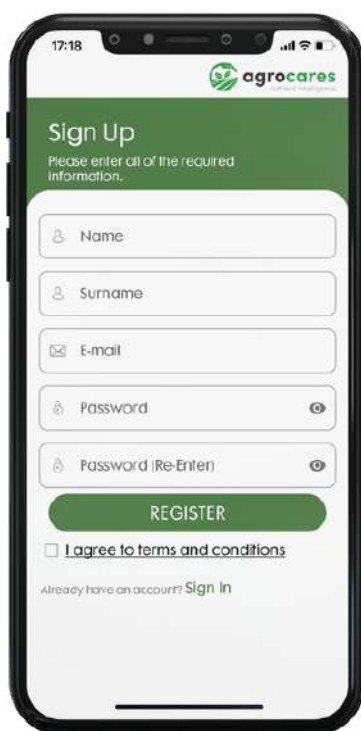
Logging in to the mobile app

To log in to the mobile app, you first need to register as a new user. Fill in your name, email and choose your password. Tick the checkbox to agree to AgroCares terms and conditions and press *Register*.

You will then be asked to enter your license key to get access to the app.

Your username will be valid for all AgroCares Platforms, the Application and Management Portal.

For iOS devices, you must redeem the license though the portal (not through the mobile app).



6. Start-up and connect



Turn the Scanner on

Press the round button for 1 second.

The lights on the device indicate the battery, Bluetooth and the measurement light will light up (red/green). The Scanner is ready to connect to the phone.



Connect the Scanner to your mobile application

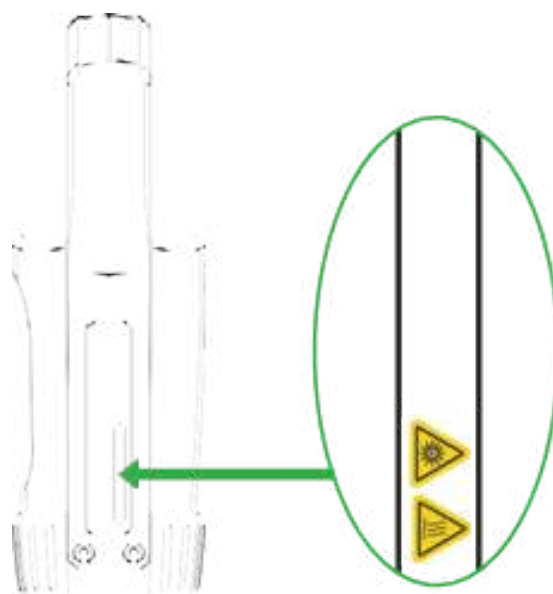
The Scanner name is located on the back side of the handle frame (see image).

The Scanner name consists of the letters SC, three to four digits and a letter. The letter indicates the device version.

Open AgroCares app. Go to the menu 'Account'. Click on <Select Scanner> in the bar Device Settings. If you previously connected the Scanner to your phone, you would find the device in the PAIRED DEVICES list.

If the connection between phone and the Scanner is new, click on 'Search for Devices' and select your Scanner name from the AVAILABLE DEVICES list.

When the connection between your phone and Scanner is set, the Bluetooth light will have a green blinking light (1x/1s). If the connection is not successful, the blinking light will be red.



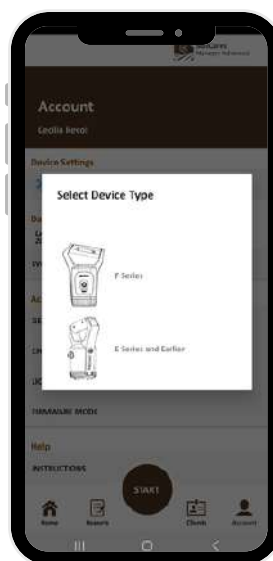
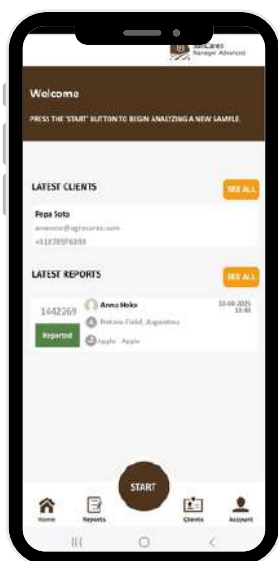
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7. Scanning (AgroCares Solution App)



Open the app and select the 'Start' button to start the registration and scanning process.

If you have not yet done step 6 (connect the Scanner to your mobile application), the app will ask you to 'select a device type' to establish the Bluetooth connection. Select F series or E series depending on your Scanner.



a. Material selection

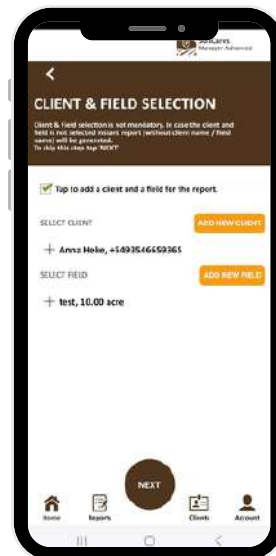
Crop selection is mandatory. At least one crop (max 5) should be added. Crops can be the current planted or future planted.





b. Client selection

Client & Field selection is not mandatory. In case the client and field are not selected, the report will be generated without them. In this step you can also select an existing client & field or create a new one.



c. Set sample location

Please ensure the location of the sample is accurately set on the map. Accurate sample location is required for a better prediction of soil nutrients. The app will automatically set the coordinates of the field selected in point II. If you wish to change the location, please click on 'change' and confirm the sample location.





d. Scan

The app always indicates which scan is needed. When the scan has been finalized a "green tick" will be displayed in the scanning step and your phone will vibrate (if this is switched on in our phone settings).

The Scan button on the app will turn green when it is ready to scan. You can press the button on the app. The Scan button on the app will turn grey when it is scanning or not ready to start the next scan.

Important: Do not move the Scanner during the scanning process



i. Calibration of the Scanner (two steps)

The Scanner lights indicate that the Scanner needs to be calibrated by the measurement light blinking red (1x/1s). The app will also indicate when that is necessary – always before scanning a sample.

1. Open Air Scan

Point the Scanner towards the ground at about 0.5-1 meters from the ground and press the Scan button. Do not cover the glass surface and do not point at a reflecting surface.





2. Calibration Cap Scan (White Cap)

White background scan with the calibration cap:

- Before each order, a white-background calibration needs to be performed with the calibration cap.
- Check if the sensor head and glass plate are clean from dirt and moist. If necessary, clean it with brush and/or tissues.
- When the Scanner is clean, place it in the calibration cap facing the white side. The Scanner head needs to be in contact with the white surface.
- Start the scanning process by pressing the 'scan' button on the device or on the phone.

Only if requested;

Scan with the yellow side of the calibration cap:

- If the application requests it, a standard sample may need to be performed with the yellow side of the calibration cap.
- Turn the calibration cap with the yellow side facing upwards, and position the sensor pins inside the holes of the calibration cap.
- Scanner head needs to be in contact with the yellow surface of the calibration cap.
- Start the scanning process by pressing the 'scan' button in the app for on the device for one second.



Note: Keep the yellow side of the calibration cap clean but do not clean it as this may damage the cap!

If the background or standard scan has not been successful, an error message will show in the app. Follow the instructions to resolve the issue. If the issue persists, please contact support via support@agrocares.com.

When the calibration process is finished, you will be redirected automatically to the sample scanning process.



ii. Scanning your sample

A sample must be prepared before you can start scanning. Prepare a big enough sample to represent your testing area. In total, five scans are required to provide an accurate measurement of your sample. The Scanner will be delivered with a sample tray and/or a sample cup. To scan your sample, please follow these steps:

Step 1

Using the tray: Mix the sample well and fill the sample tray with 4-5 cm of material.

Using the cup: Mix the sample well in a bucket and take a full scoop of material for each scan (about 250gr of soil).

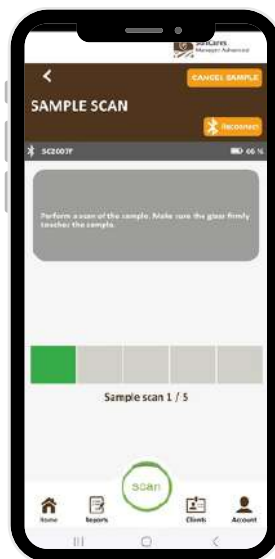
Step 2

Place the Scanner on top of the sample. Make sure the scanning surface of the sensor head is in contact with the sample.



Step 3

Press the 'scan' button on the phone screen to start the scanning process. Do not move the Scanner while it is scanning or while the scan (green) light is blinking.



Step 4

The mobile app will notify you when you can continue to the next scan. Five scans per sample are required.



Step 5

Clean the sensor head before proceeding with the second scan.



Step 6

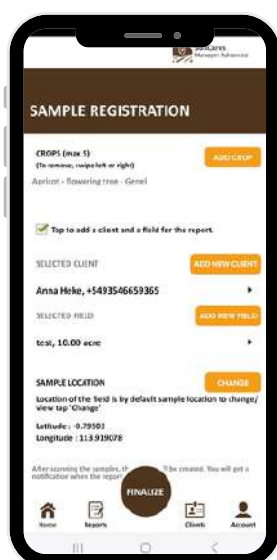
Using the tray: Place the Scanner on a new location on the sample tray and press the Scan button.

Using the cup: Take for each scan a new full scoop of soil from the collected soil sample in the bucket, place the Scanner on it and press the Scan button.



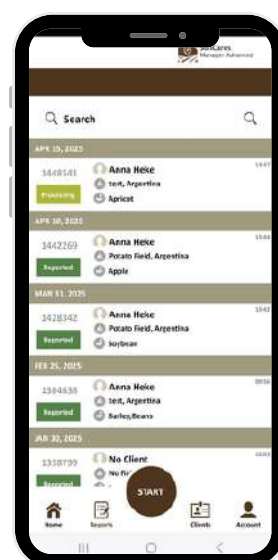
Step 7

Repeat the process until all 5 required valid scans are finalized. During each scan, make sure the scanning surface of the sensor head is in contact with the sample. Clean the sensor head between each scan.



Step 8

After performing the last scan, the app will show a summary of the sample registration process. If everything is ok, click on 'finalize'.



Step 9

After finalizing the order, the report can take a few seconds/minutes to be generated. You can go to the tab 'Reports' on the mobile app to check the status; processing' or 'reported'

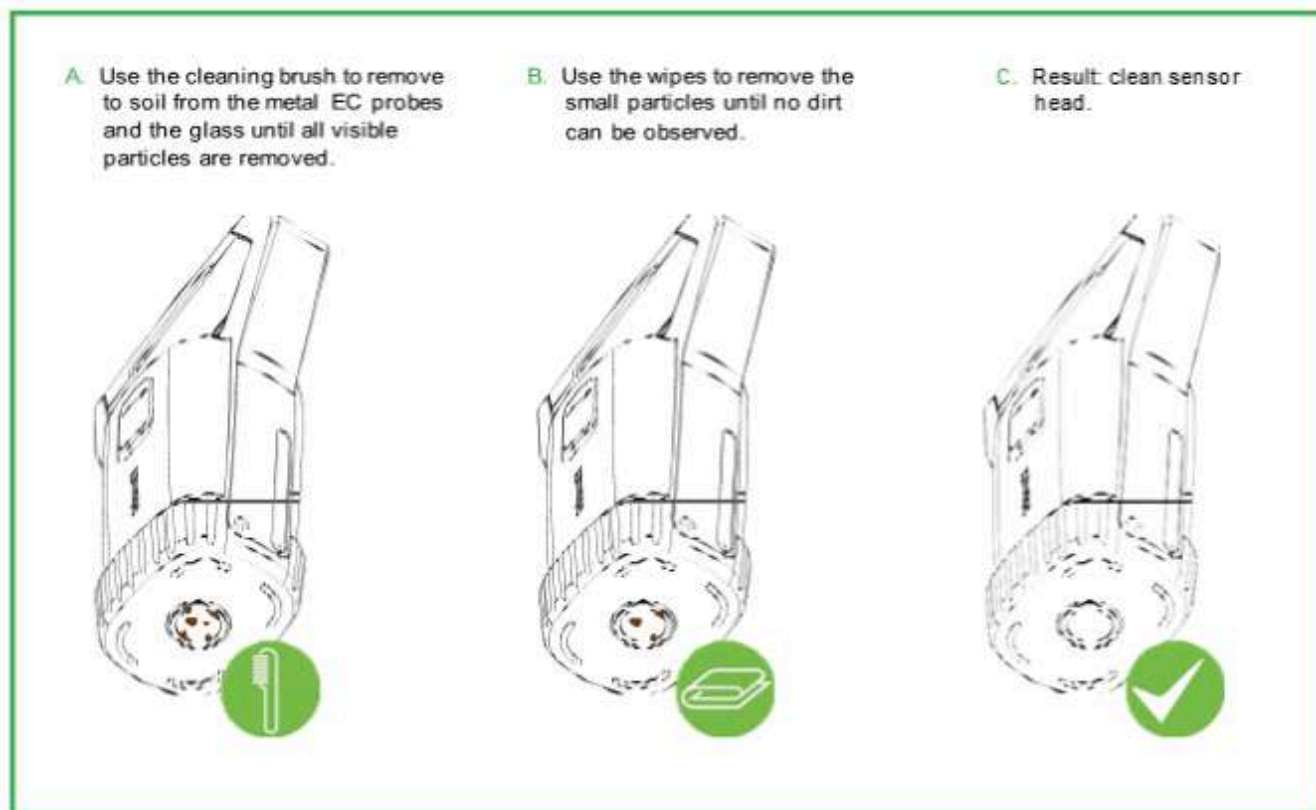


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iii. Cleaning the Scanner after and between use

The Scanner is a near-infrared (NIR) measuring device. You must take good care of your Scanner head to ensure its proper operation. Keep the bottom and glass parts of the Scanner clean by using the brush and the dry-cleaning wipes after each scan.



iiii. Cleaning the calibration cap

The white side of the cap needs to be kept clean. The yellow side needs to be kept clean and dry. It is not possible to clean the yellow side of the cap. Moisture will damage the yellow surface. If the calibration cap is not properly maintained, a replacement of the cap might be necessary.

Therefore, it is important to keep the Scanner clean before it is placed on the calibration cap.

Calibration will not be possible if the white side is not completely white anymore or if the fibers of the yellow side are loose. In that case, a replacement of the calibration cap is needed.

8. AgroCares Online Portal

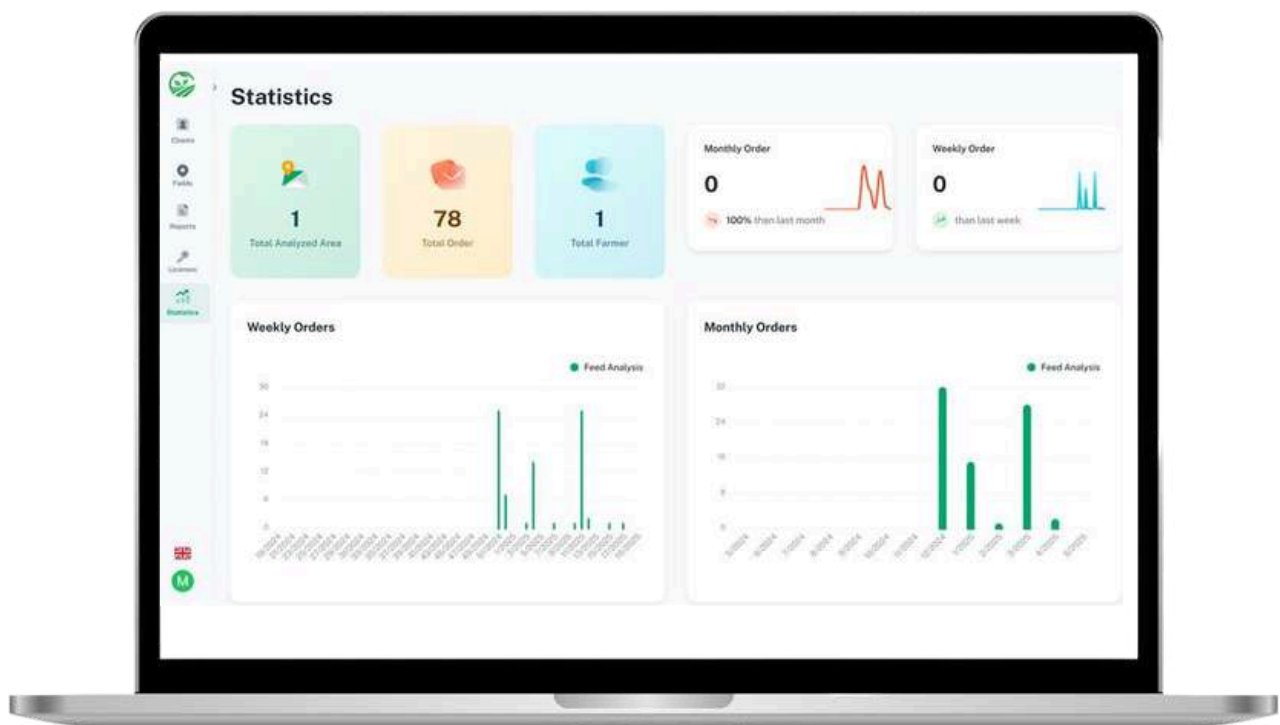


AgroCares Online Portal is available at: portal.soilcares.com

To log in to the Portal, use the same credentials as the ones you register in the mobile application.

The Portal simplifies working with the Scanner and helps you get the most out of your data. It features an intuitive dashboard with dynamic graphs and charts generated from your scans, providing a clear overview of all your clients, fields, and orders, all in one place.

You can register clients and fields online, easily edit their information, and have all updates automatically synced to your app—so everything is ready when you're back in the field. PDF reports can be viewed and downloaded directly to your computer, and all data and results can be effortlessly exported to Excel for further analysis.



9. Support Page



You can find more instructions, tips on how to make the best use of your Scanner and advice on how to properly clean and maintain your Scanner on our support webpage: support.soilcares.com

How to contact us?

You can contact our support team by email: support@agrocares.com

Alternatively, you can submit a request via the support page: support.soilcares.com

Read more

If you would like to find out more about AgroCares or learn more about our other solutions then head over to: www.agrocares.com

If you would like to read more of our support material then you can find more information on: www.support.soilcares.com

Warnings



Avoid eye contact with the light source of the Scanner!



Burn hazard: The bottom parts of your Scanner are hot during use. Do not touch the bottom parts unless the Scanner is turned off and has cooled down.

This document has been last updated in May 2025.

The most recent information is always available on AgroCares support webpage or within app guidance and FAQ.