FARMTECH

FarmTech Solutions, Inc. · Choteau, Montana · USA

Soil Maps and Prescriptions

SoilOptix scanning and sampling, and SoilRX prescriptions, on FarmIQ™

Version	v1.0
Revised	2026-11-22
Applies to	SoilOptix Scanning and Sampling and SoilRX on FarmIQ™ (farmiq.us)

Soil Maps and Prescriptions

What this system does

Two tiles on the FarmIQ™ dashboard work together:

- **Scanning and Sampling** orders a SoilOptix scan of your fields. When the results are in, you see the soil maps, download the map files, and make a Soil Report for your farms.
- **SoilRX** turns those soil maps into variable-rate prescriptions. You choose the nutrients for each field, fill in your crop and yield goal, and download prescription files and a report for each field.

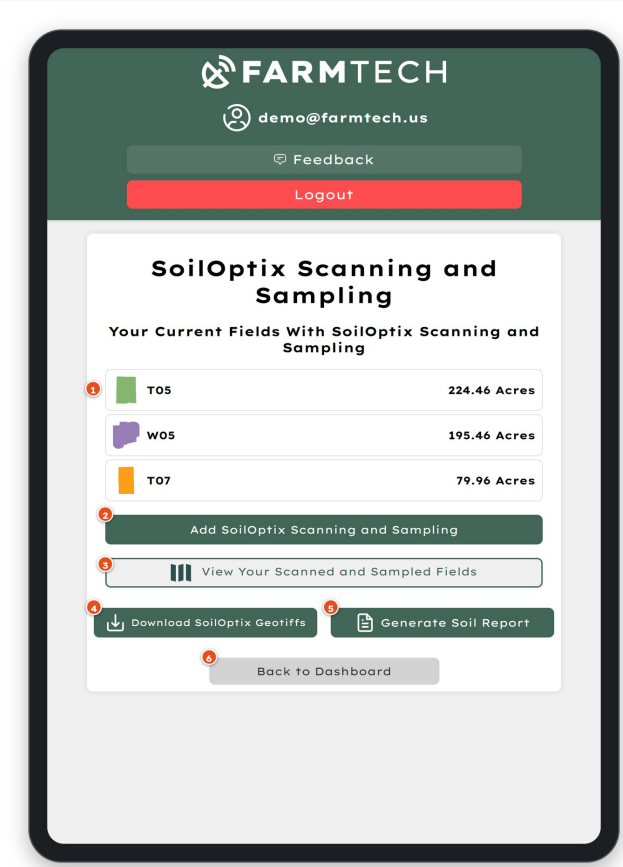
SoilRX needs SoilOptix soil data on the field. Order scanning first.

For your FarmIQ account and adding fields, see the **Getting Started with FarmIQ** guide.

The screen at a glance

Scanning and Sampling

On the FarmIQ dashboard, tap **Scanning and Sampling**.



The Scanning and Sampling page, numbered.

#	Button or area	What it does
1	Your fields	The fields you have ordered scanning and sampling for, with their acres.
2	Add SoilOptix Scanning and Sampling	Order scanning for more fields. Hidden once every field has it.
3	View Your Scanned and Sampled Fields	The map of your soil data.
4	Download SoilOptix Geotiffs	Download the soil map files for the fields you choose.
5	Generate Soil Report	Make a PDF soil report for one farm, several farms or all of them.
6	Back to Dashboard	Back to the FarmIQ dashboard.

Buttons 4 and 5 show once soil data has been loaded for at least one of your fields.

SoilRX

On the FarmIQ dashboard, tap **SoilRX**. The top of the page:



The top of the SoilRX page, numbered.

#	Button or area	What it does
1	Your Current Fields With SoilRX	Each field with SoilRX and the nutrients you bought for it.
2	Add SoilRX to Fields	Buy nutrients for a field.
3	View Your SoilRX Fields	The map of your prescriptions.
4	New field card	A field with soil data and no prescription yet. Tap it to make its first prescription.
5	Trash button	Delete the field.
6	Add a New Field	Opens Add a New Field (see Getting Started).

Further down:

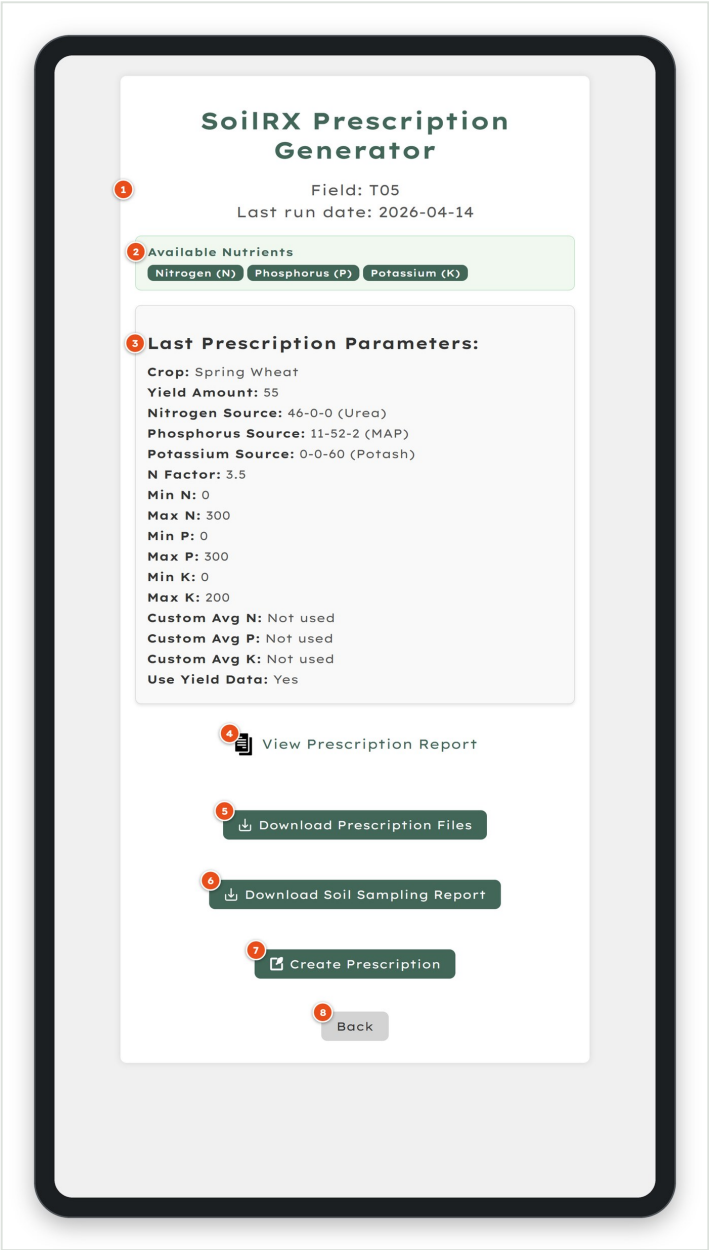


The bottom of the SoilRX page, numbered.

#	Button or area	What it does
7	Download All Prescription Reports	Every field's prescription report (PDF), in one ZIP.
8	Download All Prescription Files	Every field's prescription files, in one ZIP.
9	Download Nutrient Report	A PDF of the product your prescriptions call for, by crop, for the farms and fields you choose.
10	Create Batch Prescription	Make prescriptions for several fields at once. Shows once you have made at least one prescription.
11	Completed Prescriptions	Fields with a prescription. Tap a card to open the field's prescription page.

A field's prescription page

Tap a field card on the SoilRX page.



A field's prescription page, numbered.

#	Button or area	What it does
1	Field and date	The field's name and when its prescription was last made (for a new field, when its soil data was made).
2	Available Nutrients	The nutrients you bought for this field.
3	Last Prescription Parameters:	The settings used last time.
4	View Prescription Report	The field's prescription report (PDF).
5	Download Prescription Files	The field's prescription files, in one ZIP.

#	Button or area	What it does
6	Download Soil Sampling Report	The SoilOptix soil sampling report for the field (PDF).
7	Create Prescription	Opens the prescription form. On a field with no prescription yet the button says Run Prescription.
8	Back	Back to the SoilRX page.

Buttons 4 and 5 show once the field has a prescription.

Quick reference

To do this	Do this
Order soil scanning	Scanning and Sampling, Add SoilOptix Scanning and Sampling
See your soil maps	Scanning and Sampling, View Your Scanned and Sampled Fields
Download the soil map files	Scanning and Sampling, Download SoilOptix Geotiffs
Get a Soil Report	Scanning and Sampling, Generate Soil Report
Buy nutrients for a field	SoilRX, Add SoilRX to Fields
Make a prescription for one field	SoilRX, tap the field, Create Prescription (or Run Prescription)
Make prescriptions for several fields	SoilRX, Create Batch Prescription
Download a field's prescription	The field's page, Download Prescription Files
Download every prescription	SoilRX, Download All Prescription Files
See your prescription maps	SoilRX, View Your SoilRX Fields

Scanning and Sampling

Ordering scanning

Your fields must be in FarmIQ first (see Getting Started).

1. Tap **Add SoilOptix Scanning and Sampling**.
2. Tap each field you want scanned. A field that already has scanning shows **Currently Has Scanning** and can't be picked.
3. Tap **Order**.
4. Read the **SoilOptix Scanning and Sampling Disclaimer** and tap **I Agree**.
5. Check the fields, acres and total, and tap **Place Order**.

FarmIQ shows **Order Successful!** and emails you a confirmation. Nothing is paid in FarmIQ; an invoice follows. The fields are queued for scanning and sampling, and we contact you to set up the details.

When the SoilOptix results are ready, FarmTech loads them into your account. The map, the downloads and the Soil Report then show your fields.

The soil map

Tap **View Your Scanned and Sampled Fields**.

- Choose a layer from the **Soil Data** list. The map draws it over the satellite view.
- **Values** shows the colours from high to low.
- Tap the map to read the value at that spot.
- Tap **Back** to return.

The map shows the fields you ordered scanning for.

Downloading the soil map files

1. Tap **Download SoilOptix Geotiffs**.
2. Tick the fields you want, or tap **Select All**.
3. Tap **Download**.

You get one ZIP with a folder for each field, holding its GeoTIFF map files.

The Soil Report

1. Tap **Generate Soil Report**.
2. Choose one or more farms, or **Select All Farms**. Tap the arrow beside a farm to see its fields.
3. Tap **Generate Report**.

Generating Your Report shows what it is working on. A large account can take several minutes. When it is done, the PDF downloads by itself; if it doesn't, tap **Download Report**.

The report covers your acres, fields and sample points, compares the fields, and gives each field its strengths, concerns, nutrient summary and soil texture.

SoilRX

Buying nutrients

You buy SoilRX per field, per nutrient. Each nutrient you buy lets you make prescriptions of it for that field.

1. Tap **Add SoilRX to Fields**.
2. Tap a field. Tick the nutrients you want: **Nitrogen (N)**, **Phosphorus (P)**, **Potassium (K)**, **Boron (B)**, **Copper (Cu)**, **Iron (Fe)**, **Manganese (Mn)**, **Sulfur (S)**, **Zinc (Zn)** and **Lime**, or **Select All**. Nutrients you already have are ticked and greyed.
3. Tap **Add to Cart**. Repeat for other fields.
4. Tap **Proceed to Checkout**.

5. Read the **SoilRX Disclaimer** and tap **I Agree**.
6. Check the table of fields, acres and nutrients, and tap **Place Order**.

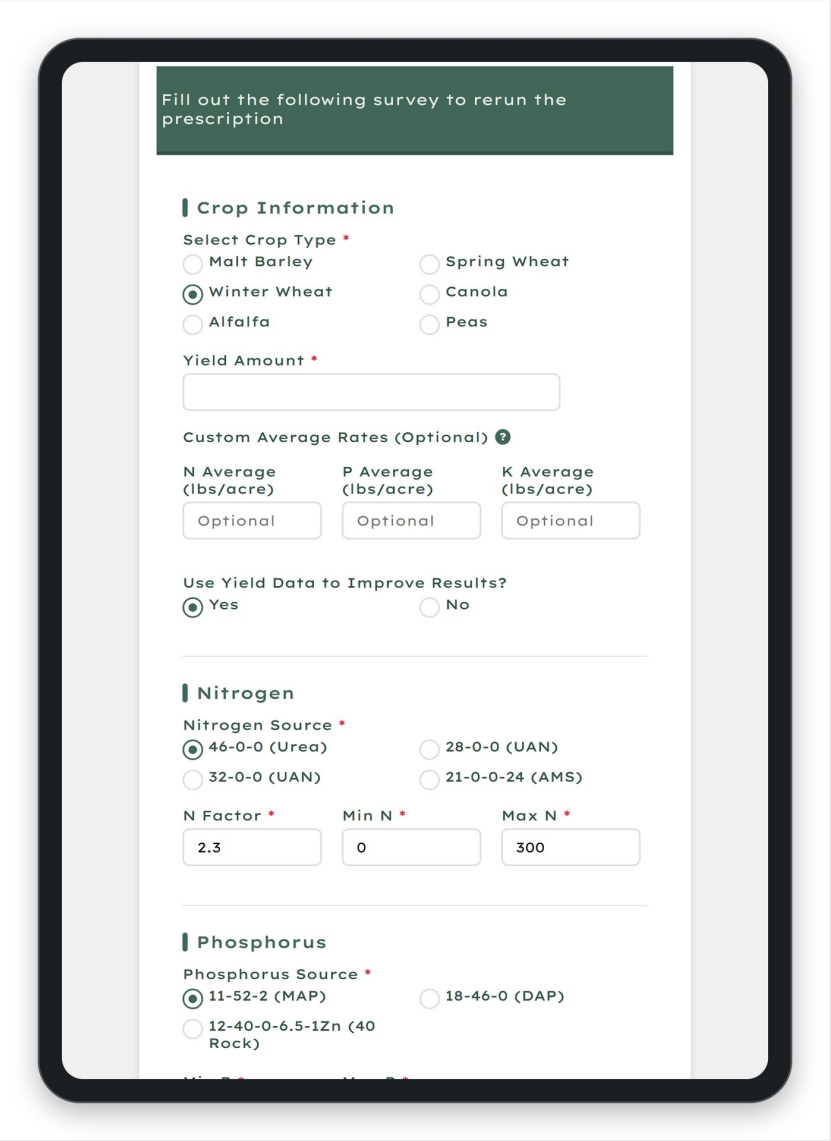
FarmIQ shows **Order Successful!** and emails you a confirmation with steps to get started. An invoice follows. You can start making prescriptions right away.

Buy SoilRX only for fields with SoilOptix soil data. A field without it can't make a prescription.

Making a prescription

1. On the SoilRX page, tap the field.
2. Tap **Create Prescription** (**Run Prescription** on a new field). The form opens.
3. Fill in the form (below). Sections show only for the nutrients you bought.
4. Tap **Submit Prescription** and wait on the page while it runs.

When it is done, **View Prescription Report** and **Download Prescription Files** have the new prescription. Making a prescription again replaces the last one.



The prescription form.

Form field	What to enter
Select Crop Type	Malt Barley, Spring Wheat, Winter Wheat, Canola, Alfalfa or Peas. This also fills in the N Factor.
Yield Amount	Your yield goal, as a number.
Custom Average Rates (Optional)	A target average rate for the field. The zones still vary, scaled so the field averages this. Leave blank to let the soil data decide.
Use Yield Data to Improve Results?	Yes uses a yield map of this crop on this field if FarmIQ has one. If it has none, the prescription runs without it.
Nitrogen Source	The product: 46-0-0 (Urea), 28-0-0 (UAN), 32-0-0 (UAN) or 21-0-0-24 (AMS).
N Factor	Nitrogen per unit of yield. Filled in by the crop; change it if you use your own.
Min N / Max N	The lowest and highest rate any zone gets.

Form field	What to enter
Phosphorus Source	11-52-2 (MAP), 18-46-0 (DAP) or 12-40-0-6.5-1Zn (40 Rock). With nitrogen but no phosphorus bought, it is still asked for: it is used for the nitrogen credit.
Min P / Max P	The lowest and highest phosphorus rate.
Potassium Source	0-0-60 (Potash).
Min K / Max K	The lowest and highest potassium rate (up to 200).
Upload Platform	TAP sends the prescription to your TAP account when it is done. Do Not Upload keeps it in FarmIQ only. One must be chosen.
Platform Username / Platform Password	Your TAP login, when you chose TAP. Tick Save these credentials for future use to have them filled in next time.

Micronutrients and lime have no settings. Each micronutrient prescription marks the zones that need it. Lime is in tons per acre of ag lime, to bring the soil to pH 6.5, at most 4 tons.

If a custom average is outside your min and max, a **Validation Warning** says so. **Go Back** fixes it; **Continue Anyway** keeps it, and the rates are held to your min and max.

Making prescriptions for several fields

Create Batch Prescription shows once you have made at least one prescription.

1. Tap **Create Batch Prescription**.
2. Tap the fields to include. Only fields with SoilOptix data and SoilRX are listed.
3. Tap **Run Prescription** and fill in the form, the same as for one field.
4. Tap **Submit Prescription**.

A **Batch Prescription Run** card shows how many fields are done. The fields run one after another. When all are done, **Download Prescription Files** and **Download PDF Reports** on the card work. **Cancel Batch Run** stops it. A new batch replaces the last one.

What you download

- **Prescription files**: a ZIP of shapefiles, one per nutrient, ready for your display or farm software. Each shapefile holds the field's zones and the rate for each zone. Rates are product rates: pounds per acre, gallons per acre for UAN, tons per acre for lime.
- **Prescription report**: a PDF with a page per nutrient: the map, the product, the minimum, maximum and average rate, the total product the field calls for, and the acres.
- **Nutrient Report**: tap **Download Nutrient Report**, tick farms or fields (fields

with no prescription say **No prescription**), and tap **Generate Report**. The PDF, **Nutrient Application Summary Report**, totals the product your prescriptions call for, by crop.

The prescription map

Tap **View Your SoilRX Fields**. Choose a nutrient from the **Prescriptions** list. Tap a zone to read its rate. Tap **Back** to return.

Deleting a field

Tap the trash button on a field card, then **Delete**. A field with an order on it can't be deleted; FarmIQ says **Cannot delete field with existing order. Please contact support if you need to delete this field.**

Troubleshooting

What you see	What to do
View Your Scanned and Sampled Fields or the download buttons are missing	Your SoilOptix results aren't loaded yet. We load them when they are ready; call us if you are waiting.
A field is missing from the soil map	The map shows fields you ordered scanning for. Contact support.
No fields with SoilOptix geotiffs found.	No soil data is loaded yet.
The Soil Report window stays open with no download	Close it and try again with fewer farms. If it happens again, contact support.
Create Batch Prescription is missing	Make one prescription field by field first.
No fields have active SoilRX. in the batch window	Buy SoilRX for the fields (Add SoilRX to Fields).
SoilRX Subscription Required on a field's page	The field has no SoilRX. Buy it with Add SoilRX to Fields.
No Run Prescription button on a field	The field has no SoilOptix soil data.
Prescription run failed. Please try again.	Check the Yield Amount is a number and run it again. If it fails again, contact support.
The report doesn't change after a run	The run didn't finish. Run it again; if it still doesn't change, contact support.
Validation Warning	A custom average is outside the min and max. Go Back to fix it.
Cannot Delete Field	The field has an order. Contact support.

Support

- **In FarmIQ**: tap **Feedback** at the top of any page and tell us what happened.
- **Phone or text**: (406) 271-6400
- **Email**: support@farmtech.us

The current version of this manual is at farmtech.us/support.