FARMTECH

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Rock Map User Guide

FarmIQ™ Rock Map — for FarmDefender Depth users

Version	v1.1
Revised	2026-08-09
Applies to	FarmIQ™ Rock Map page for FarmDefender™ Depth users

FarmIQ™ Rock Map

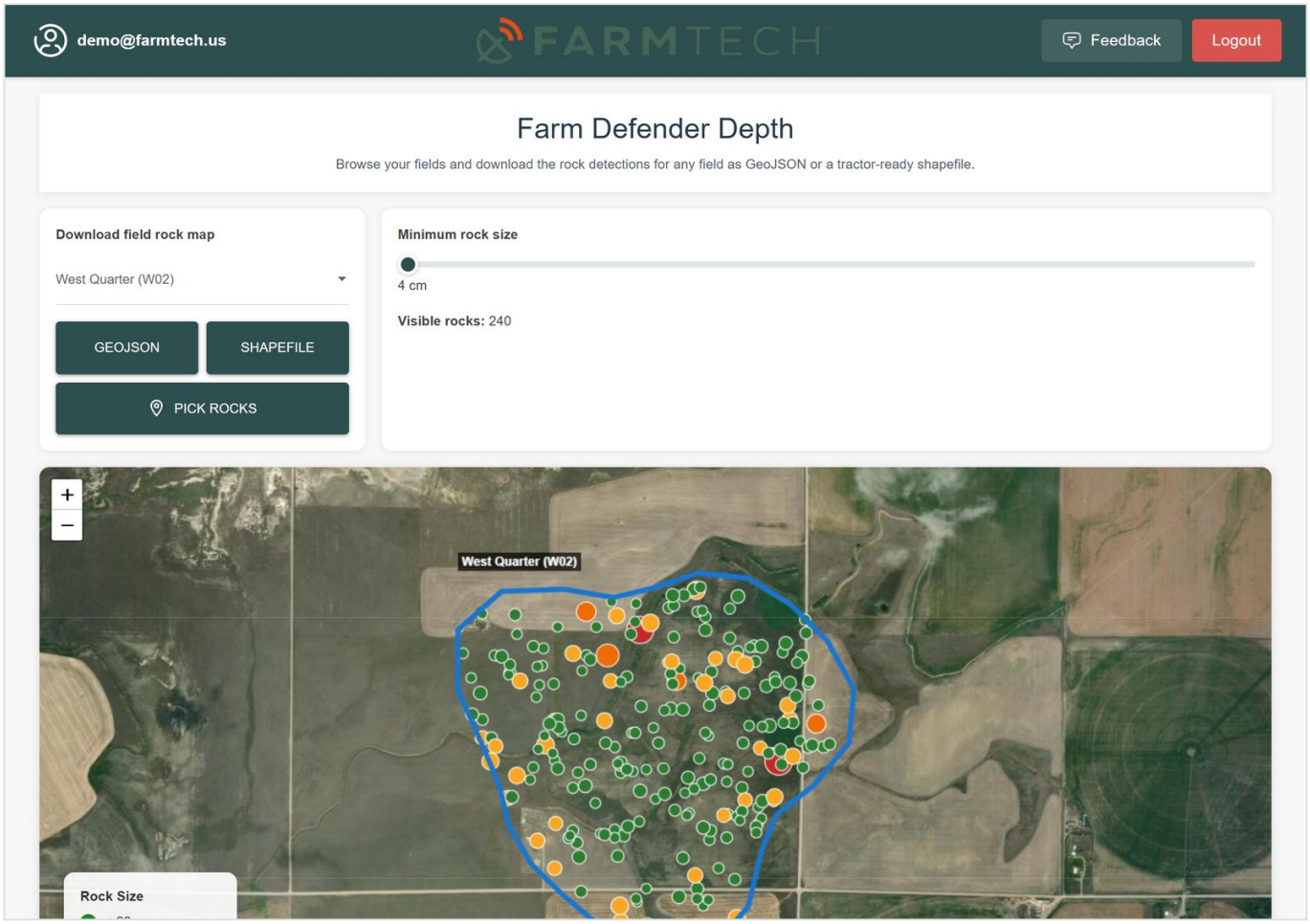
What this page does

The Rock Map page lets you see every rock detected by FarmDefender Depth across your fields, filter to the rocks worth picking, and download a per-field map for your tractor display.

Only your fields are loaded. Log in to FarmIQ™ and the page opens automatically; otherwise click the **FarmDefender™** tile on the dashboard.

Page at a glance

Area	What it shows
Top	FarmIQ header and page title.
Left card	Field dropdown + GeoJSON / Shapefile download buttons.
Right card	Minimum-rock-size slider + visible-rock counter.
Map	Satellite imagery, field outlines, all rock detections, legend in the bottom-left.
Bottom	Back to Dashboard.



The Rock Map: field selected, boundary outlined, and every detection drawn as a dot colored by size.

Reading the map

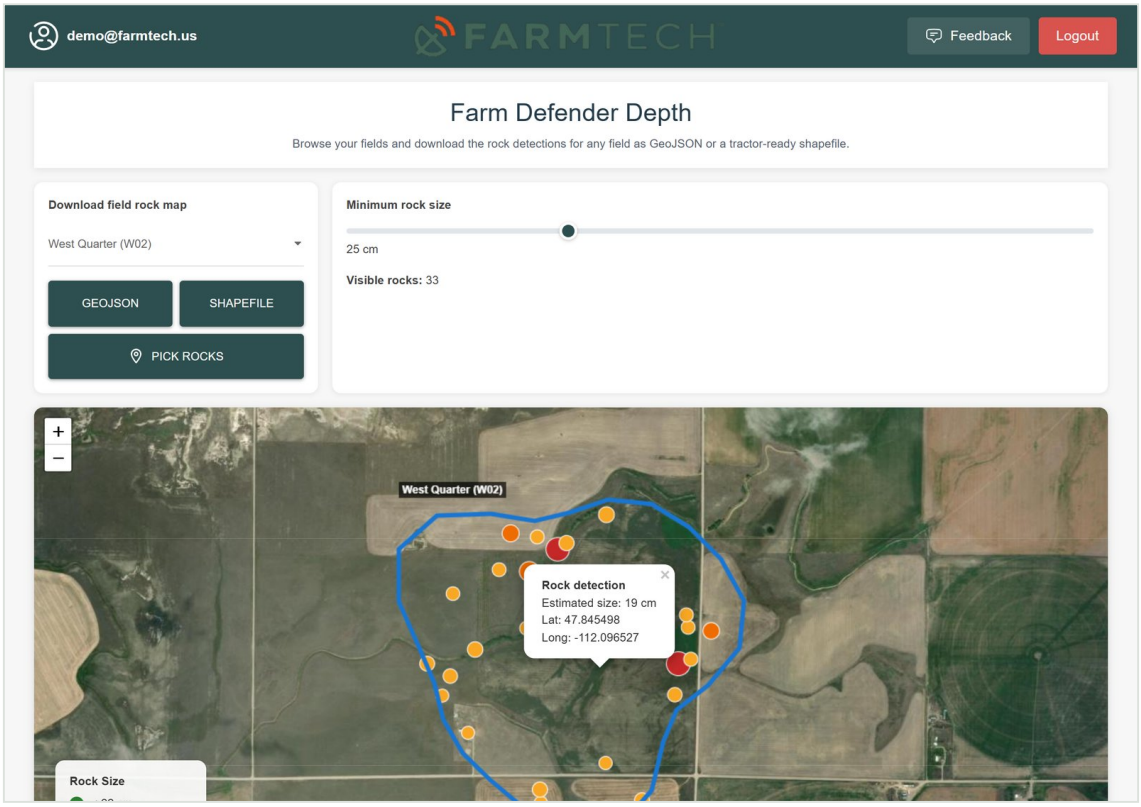
Each field is outlined and labeled at its top-left corner. Labels auto-hide when you zoom far enough out that they would overlap. Every rock detection in your fields is drawn as a colored dot sized roughly by its estimated diameter.

- **Small rock** — under 100 cm
- **Medium rock** — 100–200 cm
- **Large rock** — over 200 cm
- **Field boundary**
- **Selected field** (the one in the download dropdown)

Working a field

1. Filter by size

Drag the slider on the right card. Anything smaller than the threshold disappears in real time. The number underneath shows the current threshold (cm); **Visible rocks** shows how many remain in view.



Slider raised to 25 cm: small rocks drop off the map and the visible-rock count updates live.

2. Pick a field

Choose the field from the left dropdown. The map zooms to it and outlines it in blue.

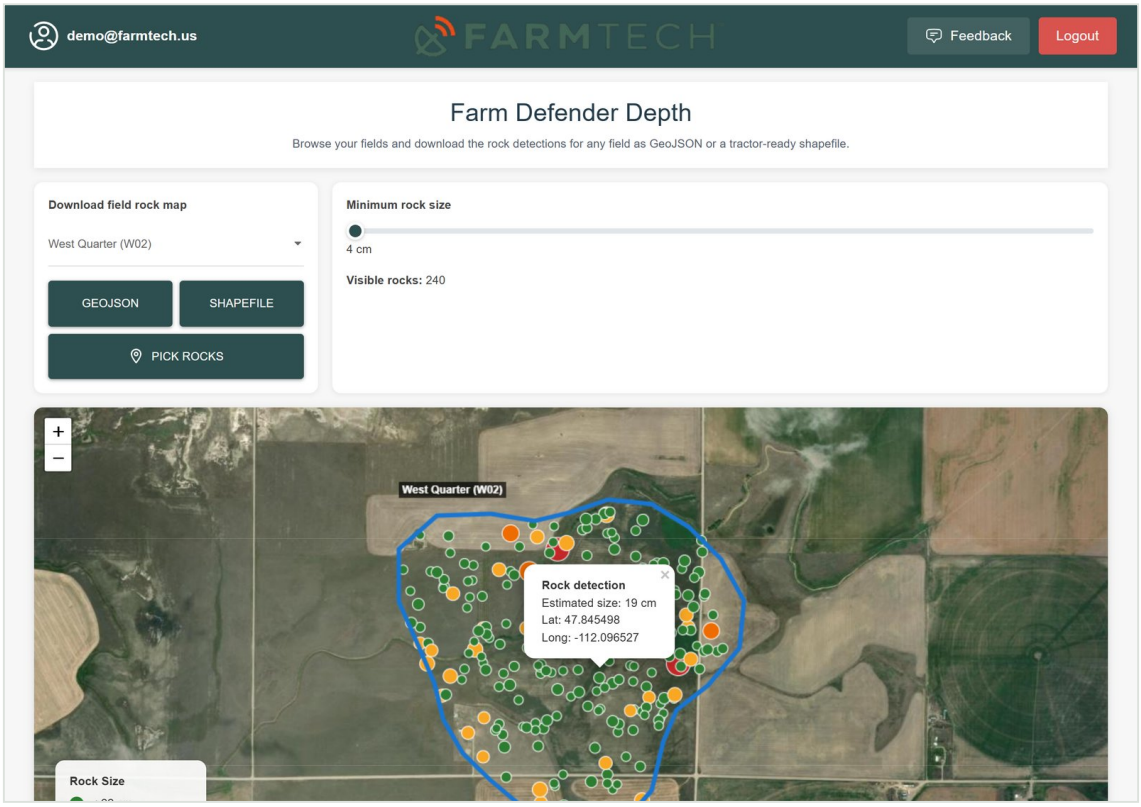
3. Download

- **GeoJSON** — single .geojson file; opens in QGIS, phones, and most mapping tools.
- **Shapefile** — .zip with the four shapefile components for tractor displays and precision-ag software.

> The download follows the slider. Whatever rocks you can see on screen for that field is exactly what ends up in the file. Slide to zero to grab everything; raise it to skip the small stuff.

Click a rock

Click any rock to see its estimated size in centimeters and its GPS latitude/longitude. Click anywhere else to dismiss the popup.



Clicking a rock shows its estimated size and GPS position.

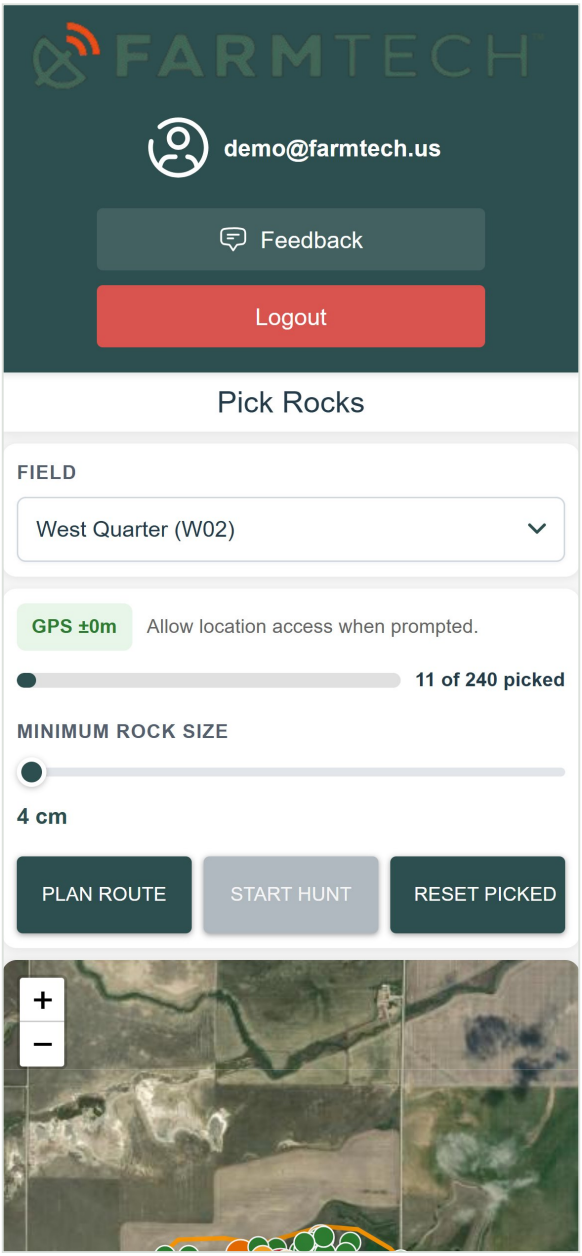
Picking rocks in the field

When you're ready to actually go pull rocks, use the **Pick Rocks** page. It's linked from the Rock Map and uses your phone's GPS to walk you from one rock to the next.

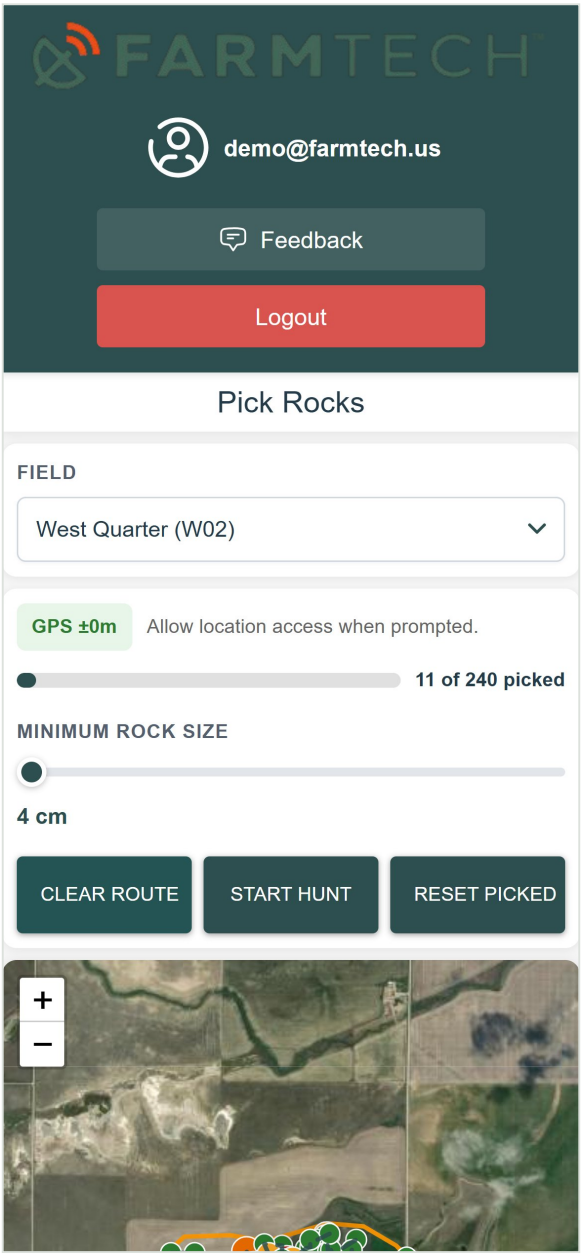
Same layout idea as the Rock Map: a field dropdown on the left, GPS status + progress bar + size slider on the right, plus three action buttons:

Button	What it does
Plan Route	Tap a rock on the map to anchor the start, then the page builds a route through every remaining rock that meets your size slider.
Start Hunt	Opens Hunt Mode (full-screen). Disabled until you've planned a route.
Reset Picked	Clears all picked marks for the field so you can start fresh.

Picked rocks are saved per user, so your progress follows you across devices and survives reloads.



Pick Rocks on a phone: field picked, GPS locked, picked-progress bar, size slider, and the three action buttons.



After Plan Route: tap a rock to anchor the route's start and end.

Hunt Mode

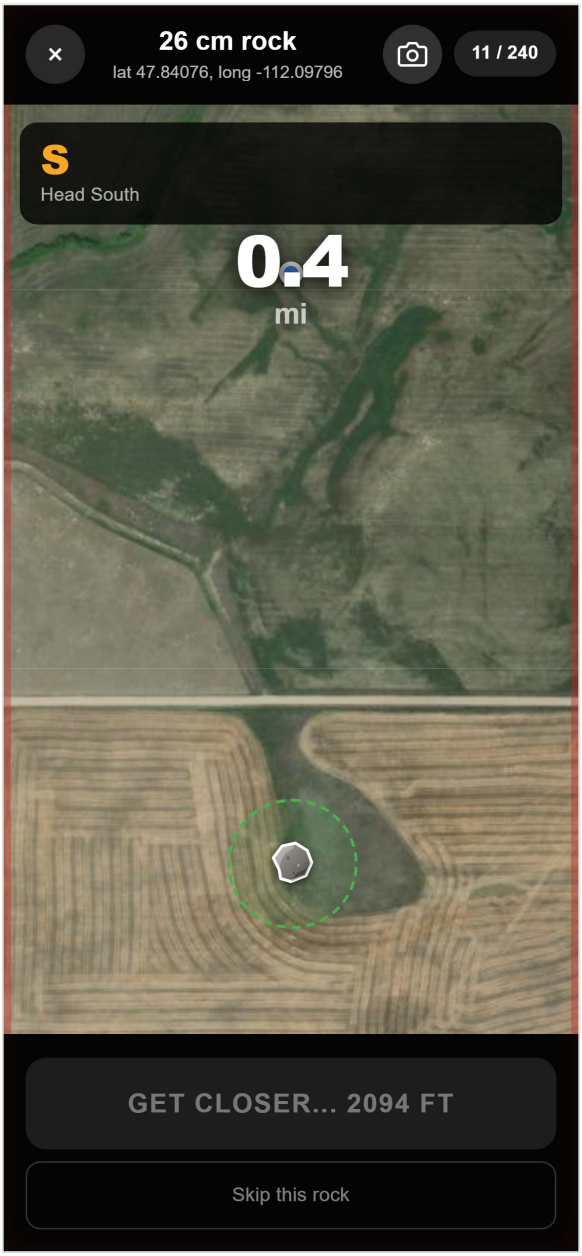
Hunt Mode is the full-screen rock navigator. Once it's running, leave your phone unlocked and walk. There's no map browsing; the page points you at the next rock and gets you to it.

On screen

- **Top bar** — current rock size + ID on the left, picked count (e.g. 3 / 47) on the right, exit (×) furthest left.
- **Center** — big white compass arrow pointing at the target rock, with the distance underneath (feet by default).
- **Border glow** — red when you're far, orange/yellow as you close in, pulsing

green when you're within a few feet.

- **Bottom — Picked!** button (greys out as Get closer… until you're close enough) and a **Skip this rock** button to move on without marking it.



Hunt Mode: the target rock, heading and distance, picked count, and the Get Closer gate.

Workflow

- **Allow GPS** when the browser asks. On iOS Safari, tap the **Enable GPS** button if the prompt didn't appear.
- **Pick a field** and (optionally) raise the size slider so small stuff doesn't end up on the route.
- **Plan Route**, then tap any rock on the map to anchor the start. The page draws the route from there through every remaining rock.
- **Start Hunt** to go full-screen. Walk toward the arrow.

- **Picked!** when you're standing over the rock and the button enables — you're auto-routed to the next one.
- **Skip** if a rock is unreachable or already cleared; it's left unpicked but you move on.
- **Exit** any time with the × in the top-left. Your progress is saved — come back later and resume.

> Compass arrow not pointing right? Some phones need you to wave them in a figure-8 to calibrate the magnetometer. If it still won't lock, the distance number alone is enough — just walk and watch it drop.

Install it like an app

FarmIQ™ works as a Progressive Web App, so you can pin it to your home screen and launch it like any other app — full-screen, no browser bar, faster to start. Do this on the phone you actually pick rocks with.

Platform	How
iPhone / iPad	Open the Rock Map in Safari. Tap the Share button at the bottom, then Add to Home Screen. A FarmIQ icon appears on your home screen.
Android	Open the Rock Map in Chrome. Tap the three-dot menu, then Install app (or Add to Home screen). The icon goes in your app drawer.
Desktop (Chrome / Edge)	Look for the install icon at the right end of the address bar. Click it and confirm. The app opens in its own window from then on.

Sign in once after installing and you stay logged in. Hunt Mode runs fine over spotty cell — the basemap tiles and rock data cache automatically after the first visit.

Quick reference

Action	How
Pan / zoom the map	Drag, or use the +/− buttons / scroll wheel.
Filter small rocks out	Drag the size slider; map and counts update live.
Jump to a field	Pick it from the field dropdown.
See a rock's size + GPS	Click the rock.
Download a field's rocks	Pick the field, then GeoJSON or Shapefile.
Walk to each rock with GPS	Open Pick Rocks -> Plan Route -> Start Hunt.
Mark a rock as picked	In Hunt Mode, walk to it and tap Picked!

Troubleshooting

Empty map. Make sure you're signed in to the account that owns the fields — only the logged-in user's fields and rocks are loaded.

Missing field. Field names come straight from FarmIQ. If it's missing from the dropdown, the field isn't assigned to your account; contact your FarmIQ admin.

Shapefile won't open. Unzip first and keep the four sibling files (.shp, .shx, .dbf, .prj) together in one folder.

GPS says "waiting…" forever. On iOS Safari, the first time you open Pick Rocks you have to tap **Enable GPS** to trigger the permission prompt. After that it picks up automatically. Otherwise, check that location services are on for your browser.

Start Hunt is greyed out. Hunt Mode needs a planned route first — click **Plan Route** and tap a rock on the map to anchor the start.