FARMTECH

FarmTech Solutions, Inc. · Choteau, Montana · USA

Weed Missions

FarmDefender™ Weed spray missions on FarmIQ™: maps, savings and exports

Version	v1.0
Revised	2026-11-22
Applies to	The FarmDefender™ Weed page on FarmIQ™ (farmiq.us), for every FarmDefender weed-detection system

FarmDefender™ Weed Missions

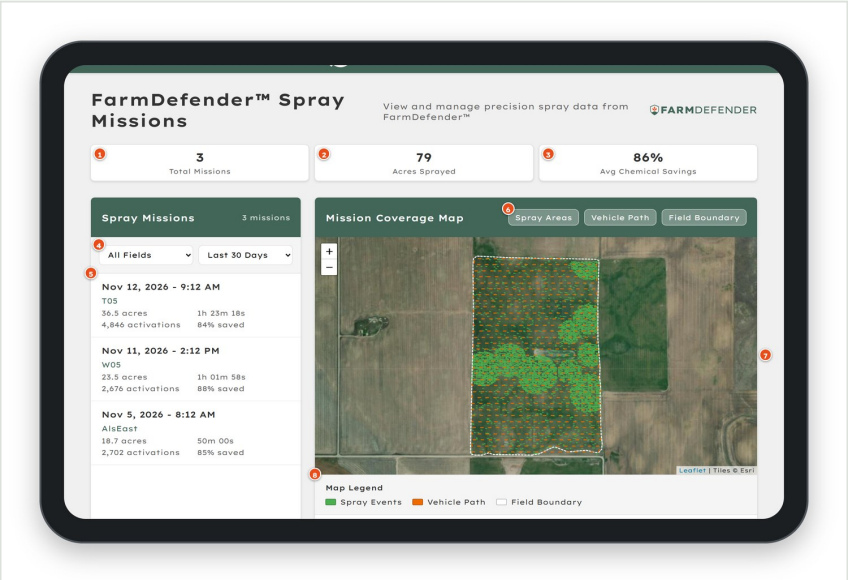
What this system does

Every field you spot spray with FarmDefender™ becomes a mission on FarmIQ™. The FarmDefender Weed page lists your missions and shows each one on a map: where the nozzles sprayed, the path the sprayer drove and the field boundary, with the acres sprayed and the chemical saved. You can export a mission for other mapping software, join two missions from the same field, or delete one.

This guide covers the page on FarmIQ. Running the sprayer is in the FarmDefender Weed User Manual. Logging in and your account are in the Getting Started with FarmIQ guide.

The screen at a glance

On the FarmIQ dashboard, tap the **FarmDefender™ Weed** tile. The page works best on a tablet or computer.

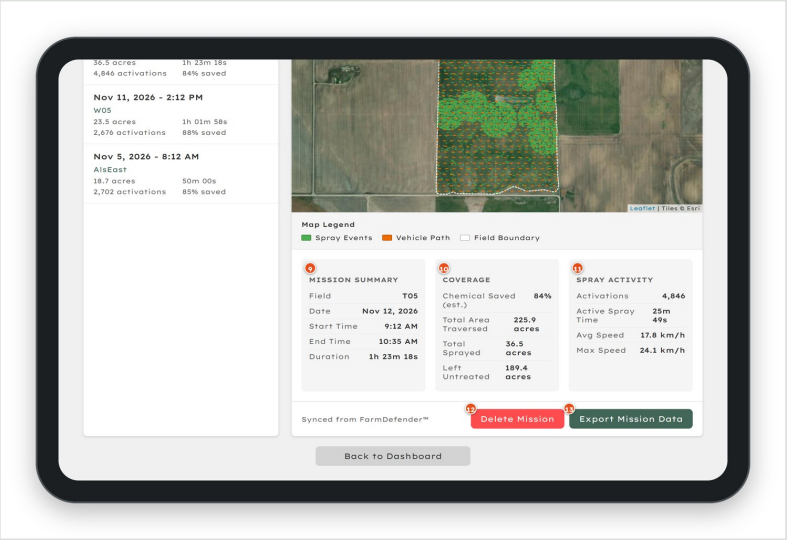


The FarmDefender Weed page, numbered.

#	Button or area	What it does
1	Total Missions	How many missions your account has.
2	Acres Sprayed	Acres the nozzles sprayed, across all your missions.
3	Avg Chemical Savings	Chemical saved compared with spraying the whole area, averaged over your missions and weighted by acres.
4	All Fields	Show only one field's missions in the list.
5	Mission card	One card per mission, newest first: date and start time, field, acres sprayed, how long it took, activations and the percentage saved. Tap a card to show that mission.

#	Button or area	What it does
6	Spray Areas, Vehicle Path, Field Boundary	Turn each map layer on or off.
7	Map	The selected mission on satellite imagery. Pinch or use + and – to zoom.
8	Map Legend	Green: where the nozzles sprayed. Orange: the path the sprayer drove. White dashes: the field boundary.

Below the map are the mission's numbers and the buttons that act on it.



The selected mission's numbers and buttons, numbered.

#	Button or area	What it does
9	Mission Summary	Field, date, the time of the first and last spray, and the time between them.
10	Coverage	Chemical Saved (est.), Total Area Traversed, Total Sprayed and Left Untreated. See Reading a mission.
11	Spray Activity	Activations, Active Spray Time, Avg Speed and Max Speed.
12	Delete Mission	Remove the mission for good. See Deleting a mission.
13	Export Mission Data	Download the mission as GeoJSON, Shapefile or KML. See Exporting a mission.

On a phone or a narrow screen the map comes first and the mission list sits below it.

Quick reference

To do this	Do this
See a mission	Tap its card in the Spray Missions list.
See one field's missions	Choose the field in All Fields.
Hide or show a map layer	Tap Spray Areas, Vehicle Path or Field Boundary.
Download a mission	Export Mission Data, choose the format, Download Export.
Join two missions from the same field	On a computer, drag one card onto the other, then Merge Missions.
Remove a mission	Delete Mission, then confirm. This cannot be undone.
Go back to FarmIQ	Back to Dashboard at the bottom of the page.

Where missions come from

1. Connect the sprayer's FarmDefender system to your FarmIQ account once: on the FarmDefender dashboard in the cab, tap **Connect FarmIQ™ Account** and log in with your FarmIQ email and password. (FarmTech may have done this for you when the system was set up.)
2. Spray the field.
3. Tap **End Mission** on the FarmDefender dashboard when the field is done.

The system uploads the mission as soon as it has a connection, and keeps trying until the upload goes through. The mission then shows on this page. Uploading the same mission again replaces it; it does not make a copy.

The **FarmDefender™ Weed** tile opens this page once a system is connected to your account. Until then it opens the FarmDefender website. A connected account with nothing uploaded yet shows **No missions** and **No FarmDefender™ missions have been uploaded for your account yet.**

A mission recorded with no field chosen is listed as **No field**.

Reading a mission

Tap a mission card. The map moves to the field and the numbers below it fill in.

Coverage:

- **Total Area Traversed**: all the ground the boom passed over.
- **Total Sprayed**: the part of that ground the nozzles sprayed. Ground sprayed twice counts once.
- **Left Untreated**: the part the nozzles skipped.
- **Chemical Saved (est.)**: an estimate of the chemical saved compared with spraying all the ground the boom passed over. Ground sprayed twice counts against it, so it is not exactly Left Untreated divided by Total Area

Traversed.

Spray Activity:

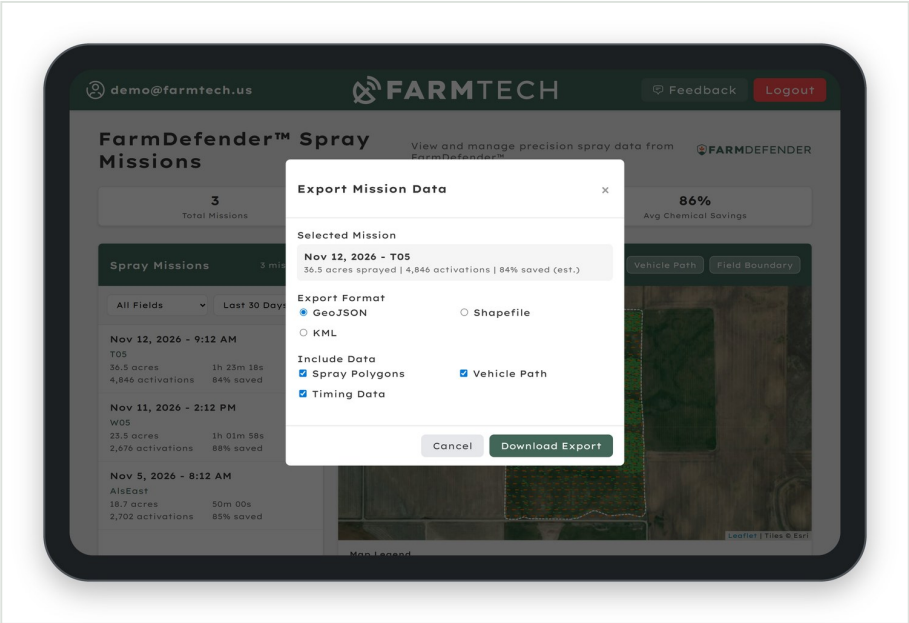
- **Activations:** how many times a nozzle section turned on.
- **Active Spray Time:** how long any nozzle was spraying.
- **Avg Speed** and **Max Speed:** ground speed, in km/h.

Start Time, **End Time** and **Duration** run from the first spray to the last spray. Times show in your device's time zone.

Hold the pointer over a Coverage line for a short explanation of it.

Exporting a mission

1. Select the mission and tap **Export Mission Data**.
2. Under **Export Format**, choose **GeoJSON**, **Shapefile** or **KML**.
3. Under **Include Data**, tick what you want: **Spray Polygons**, **Vehicle Path**, **Timing Data**.
4. Tap **Download Export**.



Export Mission Data.

The file is named for the mission's date and field. A shapefile comes as a `.zip`.

- **Shapefile** holds one kind of shape, so choose either **Spray Polygons** or **Vehicle Path**.
- **Timing Data** adds each sprayed area's start and end time, duration and speed. Untick it for a smaller file.
- **Download Export** stays grey until something you ticked has data in it.

Merging two missions

A field sprayed in two goes, for example before and after a refill or across two days, can show as two missions. Join them into one:

1. On a computer, drag one mission card onto the other. Both must be from the same field.
2. FarmIQ asks **Merge these two missions into a single mission?** Tap **Merge Missions**.

The spray areas, paths and numbers are combined into one mission, dated to the later one, and the two originals are removed. This cannot be undone.

Merging uses drag and drop, so it works on a computer, not on a phone or tablet.

Deleting a mission

1. Select the mission and tap **Delete Mission**.
2. FarmIQ asks **Permanently delete this mission?** Tap **Delete Mission** again to confirm, or **Cancel**.

The mission's spray map, path and numbers are removed. **This cannot be undone.** The FarmDefender system deletes its own copy once a mission has uploaded, so a deleted mission cannot be sent again from the sprayer.

Troubleshooting

What you see	What to do
The FarmDefender™ Weed tile opens the FarmDefender website	No FarmDefender system is connected to your account yet. Tap Connect FarmIQ™ Account on the FarmDefender dashboard in the cab, or contact support.
No missions and No FarmDefender™ missions have been uploaded for your account yet.	Nothing has uploaded yet. Tap End Mission on the sprayer after each field, and check the system has a connection.
A mission you just sprayed is not listed	The upload waits for a connection and keeps trying. Check the system's connection, then reload the page.
Mission data could not be loaded.	Reload the page. If it keeps happening, contact support.
Mission map could not be loaded. Reselect the mission to retry.	Tap a different mission, then tap this one again.
Merge failed: Missions must be from the same field	Only missions from the same field can be merged.
Dragging a card does nothing	Merging works on a computer only.
Download Export is grey	Tick a layer that has data, under Include Data.

What you see	What to do
Export failed: No features to export	The mission has nothing in the layers you ticked. Tick another layer.

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 guide is at farmtech.us/support.