

— AITERRA · ONE FIELD

One field, from soil test to prescription

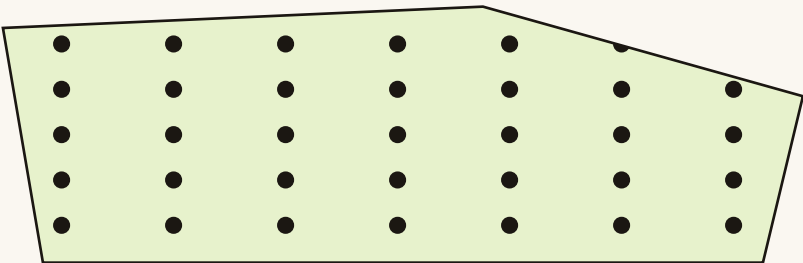
November 2026 · Public information · A real field in Northern Iowa, names removed, map mirrored

This is one real field in Northern Iowa, followed from a soil test plan to a lime prescription, with the grower's name and identifying details removed. It ties together the farm trial report and the soil test plan for this field: the same field, the same 35 grid points, the same numbers.

FIELD	WHERE	AREA	GRID POINTS	SAMPLING EVENTS
Field A	Northern Iowa	about 70 acres	35	3

01 THE FIELD

One field, sampled the same way three times



Field A
Northern Iowa
About 70 acres
35 fixed grid points
Three sampling events

Field A, simplified and mirrored. The 35 grid points stay fixed, so each new result can be compared point by point.

02 THE SOIL TEST PLAN

Test where a fresh result can change a decision

Fieldhand EarnedZones uses the field's existing soil data and maps to pick the places where a fresh result is most likely to change a recommendation. On Field A it proposes **15 of the 35 grid points**, and each point carries a reason a reviewer can check.

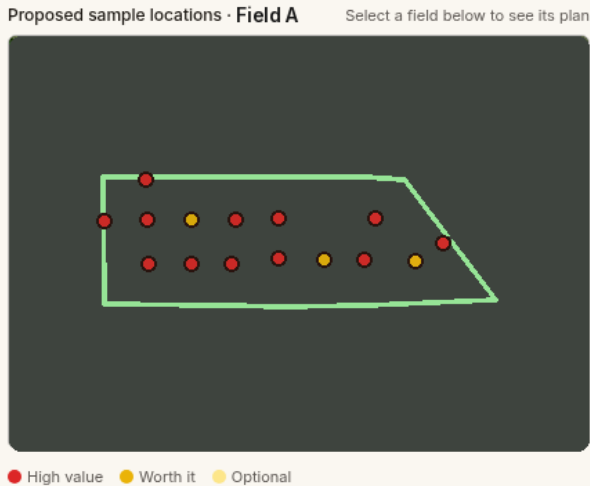
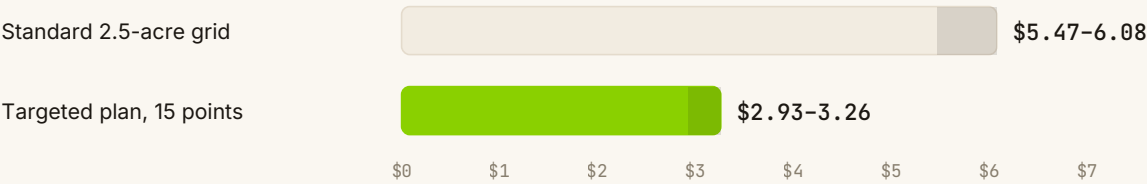


FIGURE 1 The soil test plan for Field A in Fieldhand AI: 15 proposed points, colored by the value of a fresh test (screen capture from the soil test plan, mirrored; names and coordinates removed).

Lab cost per acre, at published lab prices



Lab cost per acre on Field A at published lab prices; field collection not included (research paper and data appendix).

03 LAB RESULTS

What the lab found

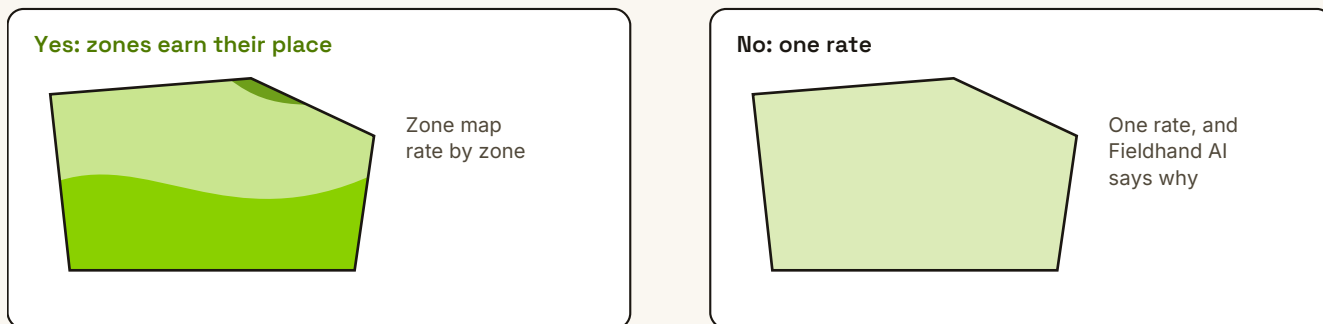
Measured at the latest sampling, 35 points	Range
pH (1:1 water)	5.6–7.3
Potassium (mg/kg)	98–278
Phosphorus, Bray P1 (mg/kg)	17–69
Organic matter (%)	1.0–5.5

- **Change at the same points over one year:** pH rose at 28 of 35 points (median +0.2) and potassium rose at 25 (median +21 mg/kg).
- **How well the ranges held:** 197 of 210 later lab values fell inside the ranges Fieldhand AI stated beforehand.

04 ZONES OR ONE RATE

Zones only where they earn their place

Held-out check: do zones beat one field-average rate?



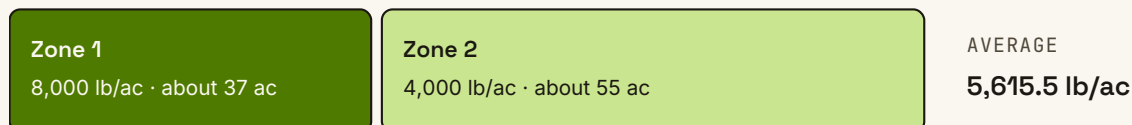
The same check, two possible outcomes.

On Field A, smooth maps beat the field average in all 18 tests, yet two-zone maps cleared the confidence bar in only 5 of the 18, and phosphorus never did. The result: zones for pH (and lime), potassium and organic matter; one rate for phosphorus.

05 THE PRESCRIPTION

From the map to the applicator

Ag-lime, by zone



A prescription goes to the applicator only after the grower or advisor reviews it.

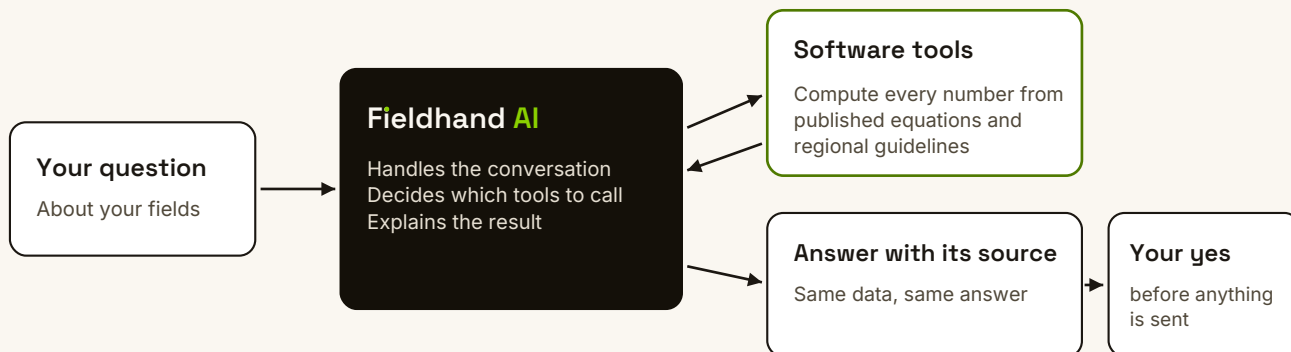
The lime prescription on record for Field A. Its record covers about 92 acres; the field boundary in Aiterra is about 70 acres, and the two have not yet been reconciled.



The path every prescription takes.

06 IN CONVERSATION

The AI talks; our tools compute every number



How an answer is put together.

The two exchanges below are illustrative examples built from this field's computed values. Each highlighted number is keyed to the step above where it appears.

Question	
Where should I sample this spring, and what will it cost?	WHERE EACH NUMBER COMES FROM 1 15 of 35 points Step 2, the soil test plan
	2 \$2.93–3.26 per acre Step 2, lab cost chart
Fieldhand AI	3 \$5.47–6.08 per acre Step 2, lab cost chart

Test 15 of the 35¹ grid points on Field A, the places where a fresh result is most likely to change a recommendation. Each point comes with its reason, so you can check it.

At published lab prices that is about \$2.93–3.26 per acre², against \$5.47–6.08 per acre³ for a standard 2.5-acre grid. Want me to draft the lab order?

Question

What's my pH, and how sure are you?

Fieldhand AI

Across the 35 points at the latest sampling, pH ran from **5.6 to 7.3¹**. Over one year it rose at **28 of 35²** points, by a median of **+0.2³**.

On how sure: on this field, **197 of 210⁴** later lab values fell inside the ranges stated beforehand. Zones pay for pH and lime here; for phosphorus, **one rate⁵**.

WHERE EACH NUMBER COMES FROM

- 1 5.6 to 7.3**
Step 3, lab results
- 2 28 of 35**
Step 3, change at the same points
- 3 +0.2**
Step 3, change at the same points
- 4 197 of 210**
Step 3, how well the ranges held
- 5 One rate for P**
Step 4, zones or one rate

NEXT PROOF POINT

We are working with our growers to bring in yield, fertilizer-use and lime-use records, and we are adding those outcomes to the validation as each season's data arrives.

Aiterra · Austin, TX · support@aiterra.ag · fieldhand.aiterra.ag