TERRABLASTER FIELD CASE STUDY

Know more. Grow more.

The Blaster 1000 is a towed implement that measures soil nutrients directly in the field, at up to 6 mph, and hands the reading to your agronomist on the spot. It feeds the variable-rate phosphorus, potassium and lime prescriptions your operation already writes.

0.15 ac
RESOLUTION
An 80-foot grid, 16x finer than 2.5-acre sampling.

20 / sec
DIRECT READING
About 100 readings averaged over every 80 feet.

Minutes
TURNAROUND
Results in the field, not days later from a lab.

4x
LESS LABOR
Faster than a manual crew, with no cores to pull.

High accuracy
20+ NUTRIENTS
As close to lab values as two labs are to each other for P, K, pH, SOM, CEC, micros

CASE STUDY: THE IMPACT OF HIGHER RESOLUTION, MEASURING POTASSIUM AT TWO GRID SIZES

The average is the same. The prescription is not.

Two measurements of the same field, at 2.5-acre and 0.15-acre resolution, recommend the exact same average potassium rate. Where that potassium needs to go is different.

2.5-ACRE GRID

Conventional soil sampling

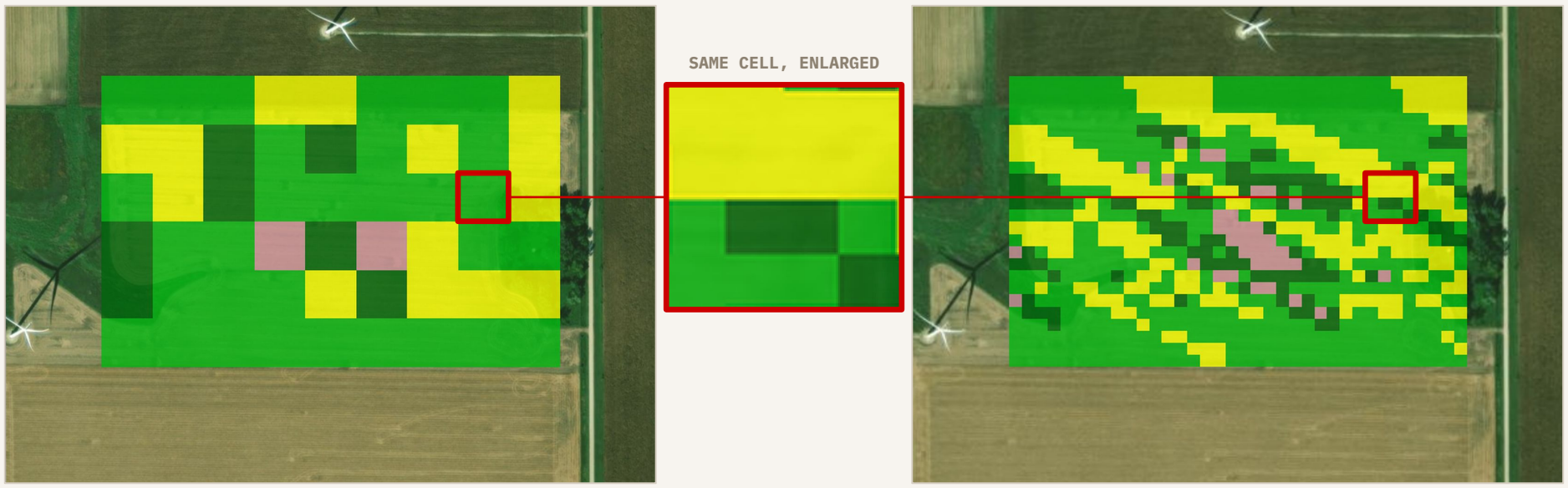
One composite sample per 2.5 acres, a 330-foot square

SAME CELL, ENLARGED

0.15-ACRE GRID

TerraBlaster measurement

One reading per 0.15 acres, an 80-foot square



POTASSIUM LEVEL — Very Low · Low · Optimal · High · Very High

About 60% of the field gets the same fertilizer applied either way. But at 2.5-acre measurement, 40% of the field is mis-prescribed, with 20% receiving more fertilizer than it needs and 20% not receiving enough.

The center square is an example cell enlarged. One 2.5-acre reading of “Optimal” is 50% Low, 31% Optimal and 19% High.

SAME TOTAL APPLIED
118 lbs/ac
Both prescriptions apply the same total potassium. Only the placement changes.

MIS-PRESCRIBED AREA
40%
20% of the field gets more potassium than it needs, 20% gets less.

ESTIMATED VALUE
+$10/ac/yr
$10 increased yield from K placement; $35 for N/ P/ K/ Lime combined + $10 savings from soil lab and labor

Each map cell shows the measured value for that grid cell, a 2.5-acre composite sample or a direct 0.15-acre TerraBlaster reading, not an interpolated surface. Colors are soil test potassium in ppm; lbs/acre figures are the resulting prescription using standard Iowa State University recommendations. Yield impact is estimated from published agronomic literature on nutrient response, not a measured strip trial on this field, and will vary with weather, starting fertility and crop price (assumption here $5 corn and $12 soybeans per bushel).

SOURCE: TERRABLASTER INC. (FIELD MEASUREMENT, 2025 GROWING SEASON)

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