

Key Highlights

The Trend Told the Story

A single map can flag stress; successive nutrient-deficiency maps showed the deficiency worsening over the season, not recovering.

Scouting Aimed at the Right Zone

The worsening pattern directed scouting to the affected area, where in-field symptoms matched sulfur deficiency.

A Defensible In-Season Fix

With the trend plus ground-truth, a plant nutrition product was added to a planned pass to correct a specific deficiency, not a generic plant-health spray.

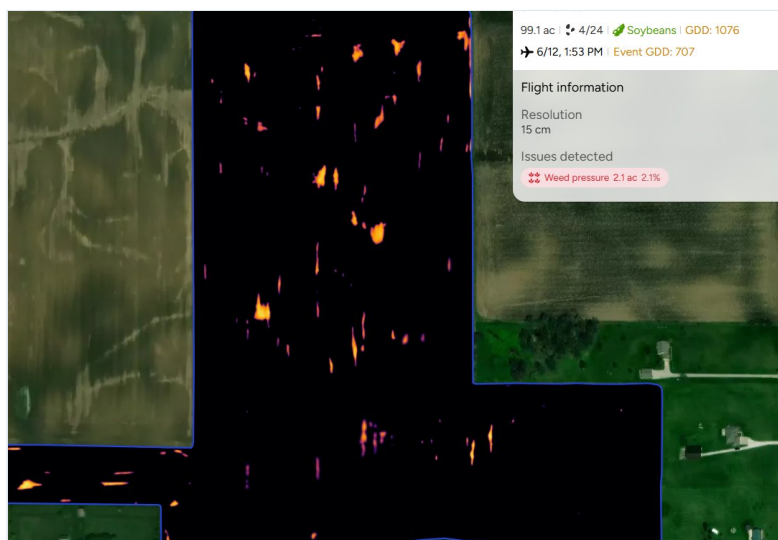
Nutrient Deficiency

In-Season Sulfur Deficiency Correction with a Plant Nutrition Product

Background:

In only its second year under this grower's management, the field had little history to lean on. AGMRI nutrient-deficiency maps gave the agronomy team a whole-field view over time, showing a stressed area that wasn't recovering but steadily worsening, and turned a developing signal into an in-season correction.

With limited history around soil variability, drainage, and prior fertility, catching in-season stress early mattered, and so did telling whether it was temporary or actively worsening. As the season progressed, the maps showed a clear trend: the affected area grew more pronounced across successive imagery dates, not a one-time signal. Rather than writing it off as general crop stress, the team used the trend to prioritize scouting, where symptoms appeared consistent with sulfur deficiency.



Nutrient-deficiency map, June 12: moderate, scattered signals, easy to dismiss as normal early-season variability.

Challenge:

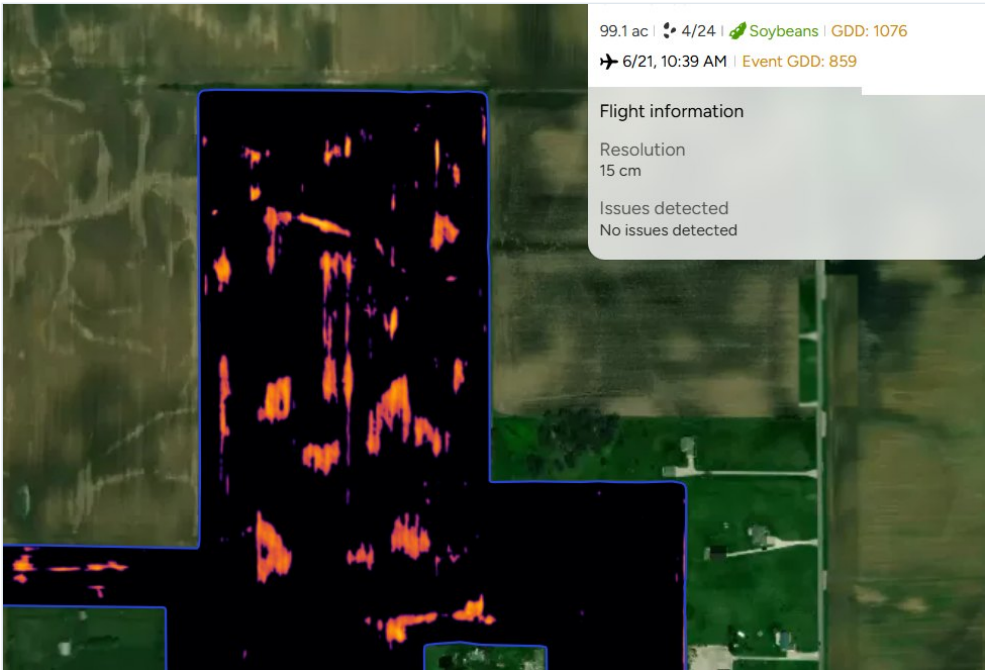
The challenge wasn't spotting a stressed area. It was telling whether the problem was temporary and weather-related or a correctable nutrient deficiency. Early-season stress can come from cool soils, wet conditions, compaction, residue, or slow rooting, and often clears as conditions improve. But the maps showed this field's stress getting worse as the season went on, suggesting the crop wasn't recovering on its own, and that yield potential was slipping each week it went uncorrected (2–7 bu/ac at risk).

A single image can flag a stressed area. A worsening trend across nutrient-deficiency maps showed this crop wasn't recovering on its own, and needed correcting in season.

In-Season Sulfur Deficiency Correction with a Plant Nutrition Product

Solution:

AGMRI turned a developing nutrient-deficiency signal into an actionable in-season fertility decision. The team reviewed the nutrient-deficiency maps as the season progressed and watched the signal grow more severe over successive dates, then used that worsening pattern to decide where to scout first.



Same field, June 21: the deficiency signals intensified and spread, the worsening trend that drove the in-season correction.

In the field, symptoms appeared consistent with sulfur deficiency, so a plant nutrition product was added in season to correct it. The recommendation didn't rest on a single snapshot; it was built on a worsening trend across multiple maps and confirmed by ground-truth scouting, which made the application a targeted correction rather than a generic plant-health pass. The platform surfaced the location and the trend; the agronomic call stayed with the grower and agronomy team.

Results:

The real value was seeing the nutrient issue worsen before the season was over. A single crop-health image can flag a stressed area; successive maps show whether the crop is recovering, holding, or declining, and here it was declining. That gave the team the confidence to correct in season rather than wait until harvest to confirm a preventable loss. With a plant nutrition product added to a pass the grower was already planning, the expectation is to recover roughly 3–5 bu/ac across the field.

6 bu/ac FORECAST GAP: DEFICIENT VS. HEALTHY	\$62/lac REVENUE AT RISK IN THE DEFICIENT AREA	\$4/lac NUTRITION PRODUCT, ADDED TO A PLANNED PASS
---	--	--