

Key Highlights

Early Issue Detection

Emergence problems in a specific field left it particularly vulnerable, compounding the effects of the wet June weather that created a favorable environment for early disease development.

Data-Driven Decisions

Horizons tools enabled the farmer to identify the distribution problem with the applicator

ROI Assessment

Left unaddressed, this issue could result in an estimated 10 bushels per acre, equating to a potential \$37 per acre loss across corn acres.

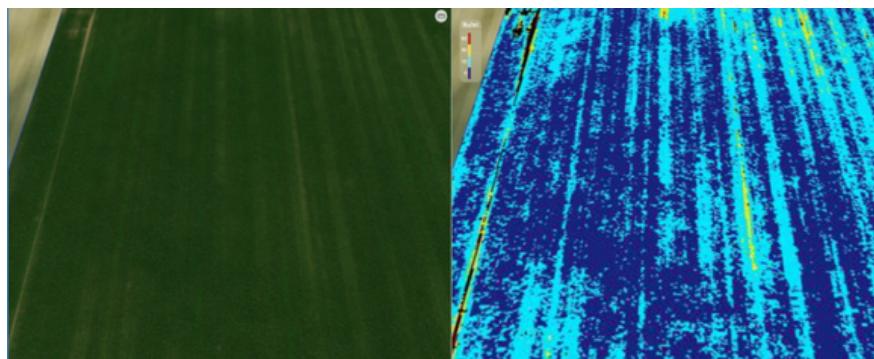
Nutrient Deficiency

Enhancing Nitrogen Management for Improved Yields

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Background

An Indiana crop consultant and farmer balances a busy career in sales, service, and farming while also enjoying family time with his three children. As a second-year Horizons user, this farmer is dedicated to optimizing farming practices and improving what's within his control to avoid yield losses. Last season, he faced challenges with seed prescriptions, which led to money being left on the table. With a mindset of improving YoY, he knew Horizons was his way of improving his efficiency. It not only allows him to find issues but, more importantly, quantifies them into an ROI at the end of the season.



This image uses aerial and NVision to visualize the impact of compaction and nitrogen application issues. The wide strips are the tractor tires, and the narrow lines are where nitrogen was short. In total, it affected the entire field.

Challenge

The challenge for this farmer is detecting an issue before it's too late, given his time constraints. During the 2024 season, significant nitrogen distribution issues arose across multiple fields on his farm. A rushed application led to soil compaction and uneven nitrogen distribution due to a malfunction in the 15-row applicator. In this case, he used aerial, NVision, and VEG map layers to interpret the nitrogen and compaction implications. Despite catching the problem early, wet conditions prevented timely intervention. If left unaddressed, this could result in substantial yield losses—an estimated 10 bushels per acre, equating to a potential \$37 per acre loss across corn acres.

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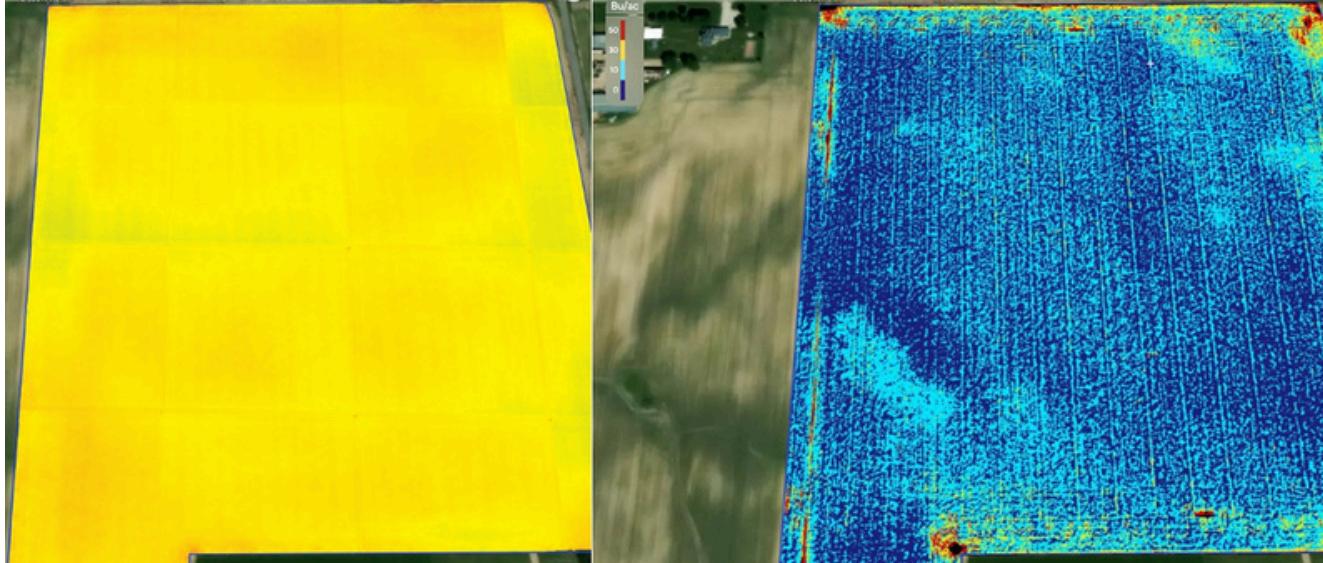
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Solution

Horizons, including NVision and aerial mapping, enabled the farmer to identify the distribution problem with the applicator. Acknowledging the need for improvement, he plans to either upgrade to a 17-knife applicator or increase the rates on the current setup to ensure more consistent applications. Once these improvements are made, he intends to keep a close eye on the progression until it is a proven fix. Additionally, he plans to implement processes for evaluating soil conditions to avoid unnecessary soil compaction, as it has proven costly in this example.

Results

The farmer is a Horizons advocate, acknowledging its role in helping meet his crop plan. He also recognized the importance of learning from past mistakes, like previous planting rates leading to low emergence. Now, with insights gained from Horizons, he will be in a better position to enhance nitrogen practices, seeding prescriptions, and overall crop health, including disease detection like tar spot.



Yield forecast picks up the stripes of low nitrogen, and the NVision map shows how the entire field suffered later in the season.