



SKYSCOUT

FIELD FEATURE – What Do You See?

Can you spot the early warning signs?

Take a close look at this early-season NDVI image captured on May 30, 2025. The field was planted to corn and had recently been worked with a field cultivator.

At first glance, the overall vigor looks low – but zoom in on the image, and you'll notice a distinct, choppy pattern running through the rows. Something happened at planting that left its mark across the entire field.

Image 1:

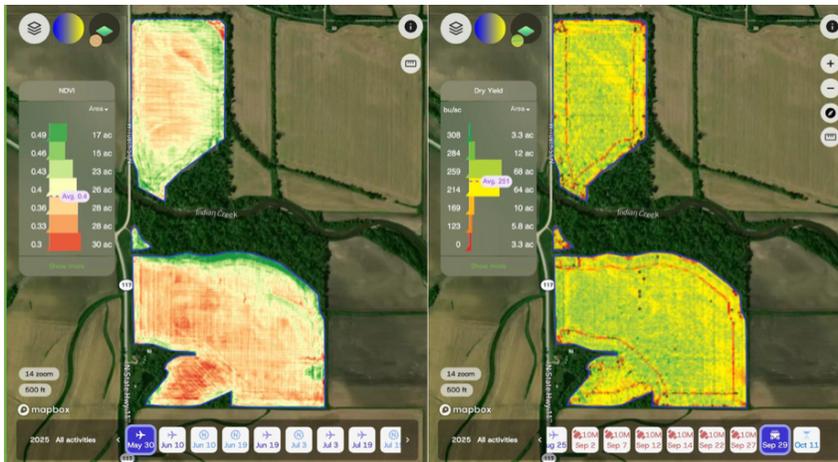
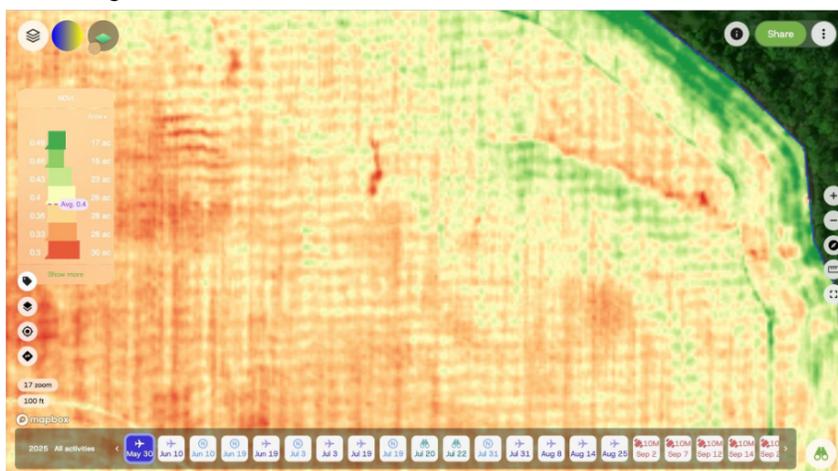


Image 1: Early-season NDVI (May 30, left) alongside end-of-season Dry Yield map (September 29, right). Average NDVI: 0.4; Average Yield: 251 bu/ac.



Zoomed View: Notice the short, choppy row-to-row variability in NDVI – a telltale sign of inconsistent seed placement during planting.



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Consider how management practices may be contributing to these patterns:

The field was worked with a field cultivator prior to planting. Look closely at the NDVI — you can see short, repeating bands of low and high vigor running down the rows. That kind of choppy, row-level pattern doesn't come from weather, soil type, or fertility. It points to something mechanical: the planter itself.

Revealed Field: Tillage-Induced Planter Down-Pressure Failure

Image 2:

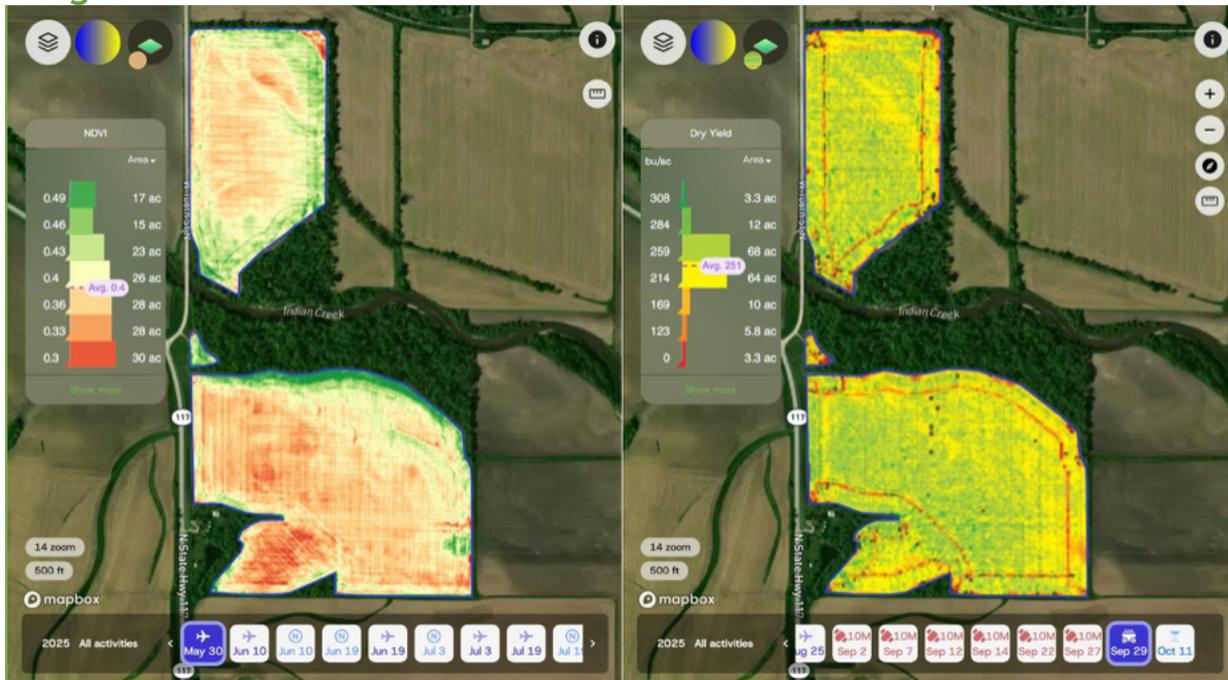


Image 2: Side-by-side comparison — the early-season NDVI pattern (left) carried directly through to the yield map (right), confirming that planting issues set the stage for season-long yield loss.



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Analysis

The field cultivator created an uneven seedbed — a mix of loose, fluffy soil and firmer ground across the field. When the planter ran through this variable surface, the down-pressure system couldn't react fast enough to the rapid changes in soil resistance. In some spots, the row units rode too high in the loose soil, placing seed too shallow. In others, they dug in where the ground firmed up. The result was inconsistent seed depth and poor seed-to-soil contact across the field.

This shows up clearly in the May 30 NDVI image as that short, choppy pattern — alternating bands of stronger and weaker emergence running down every row. It's not a fertility issue, not a hybrid issue, and not something weather caused. It's mechanical: the planter's down-pressure system failed to maintain consistent depth in the variable seedbed left by the field cultivator.

The yield map from September 29 confirms the damage. The same zones that showed low early-season vigor delivered significantly lower yields at harvest, with affected areas dropping well below the 251 bu/ac field average. Some of the hardest-hit zones fell to 169 bu/ac or lower — a loss of 80+ bushels per acre compared to the best-performing areas of the field. The pattern that was visible at emergence never recovered.

SkyScout Layers Used:

- **NDVI Layer-** Captured May 30, 2025. Used to identify early-season vigor patterns and pinpoint areas of poor emergence before they became visible from the road.
- **Dry Yield Layer-** Captured September 29, 2025. Provided field-level yield data that confirmed the early-season NDVI patterns translated directly into measurable yield loss at harvest.

Takeaway

Tillage decisions don't just affect the soil — they set the stage for everything that follows at planting. A field cultivator can create an uneven seedbed that overwhelms your planter's down-pressure system, leading to inconsistent seed depth and emergence problems that persist all the way through to harvest. In this case, the damage was visible in SkyScout's NDVI imagery just weeks after planting, giving the grower an early signal that something went wrong.

If you're running tillage ahead of planting, double-check that your planter's down-pressure is calibrated for the conditions. Early-season SkyScout maps can also help flag



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potential issues early, while there's still time to make adjustments across the rest of your acres.