

We put our own money behind our own forecast

We expected a bigger supply hit than the USDA delivered. We got the size wrong — and the direction, the timing and the structure right. That was enough.

Most agricultural forecasters are never marked to market. We decided to be. On **13 July 2026**, with the USDA still carrying US corn yield at trend — 183 bu/ac, zero weather loss priced — Helios published a desk note arguing that number was too high, and four sessions later put its own capital behind the view in December corn calls. On **12 August** the USDA moved our way: yield cut to **180.7**, below trade expectations, ending stocks trimmed to ~1.7 billion bushels, December corn up 20¢ to a monthly high. We sold into that day for **+4.9% on capital at risk**. The downgrade was real — and far smaller than we had forecast. We got the trajectory right and the magnitude wrong, and this page shows both, because a firm that only shows you the winners is not telling you how it makes decisions.

RETURN ON CAPITAL AT RISK

+4.9%

in 26 days — and the denominator is the *maximum loss*, not margin

Premium 12.875¢ → 13.50¢

VERSUS SIMPLY OWNING THE FUTURES

1.7×

flat price returned +2.8% over the same window

Convexity did the work

CAPITAL AT RISK BEYOND THE PREMIUM

Zero

maximum loss fixed at the moment of entry

No margin calls, no gap risk

THE SCORECARD · VERIFIED AGAINST USDA & OBSERVED WEATHER

Right on the trajectory, too aggressive on the magnitude

The note's core claim was mechanical: corn sets kernels during pollination, warm nights in that window make the plant respire away the sugars it should be moving into kernels, and the USDA — still carrying trend yield — had none of that priced. If the forecast heat verified, we said, trend was **−8 to −10 bu/ac** too high. Here is each piece of that call against what actually happened:

THE CALL · 13 JUL	WHAT WE SAID	WHAT HAPPENED	VERDICT
Trajectory	183 bu/ac trend is too high — the balance sheet will tighten	12 Aug WASDE: yield cut to 180.7 , below the ~182.5 trade guess; ending stocks trimmed to ~1.7 bn bu	RIGHT
Timing	Own upside before the Jul 27 – Aug 24 window; sell into the spike, never chase	Corn jumped 20¢ to a monthly high on report day — the day we sold	RIGHT
Magnitude	−8 to −10 bu/ac off trend yield	−2.3 bu/ac — the direction we called, at roughly a quarter of the size	TOO BIG
Weather input	+3.2°F night anomaly; 44% of pollination nights ≥70°F	+0.6°F observed; 3% of nights — the forecast heat mostly did not arrive	MISSED

The instructive detail is *where* the miss lives. Our crop model was not the problem: run the same measured elasticity — −1.7% of yield per +1°F of night warming, fitted on 36 observed seasons — on the **+0.6°F that actually occurred**, and it implies a loss of about **2 bu/ac: within half a bushel of the 2.3 the USDA took**. The overshoot came from the 1 July weather forecast we fed the model, not from the crop response behind it. And for the full scorecard: our headline crop-risk index read 2026 as a *calmer-than-normal* season throughout. The edge was never a flashing dashboard — it was the gap between a trend-yield balance sheet and a season whose risk window was still ahead. That gap closed on 12 August, and the position was there when it did.

THE ANATOMY · WHERE THE RETURN CAME FROM

One leg of four carried it — and that was enough

COMPONENT	WHAT HAPPENED	EFFECT ON PREMIUM
Price move (delta & gamma)	December corn 467.50 → 480.75, +2.8%	+4.93¢
Time decay (theta)	26 days closer to expiry, 500 strike still out of the money	-2.73¢
Implied volatility (vega)	22.9% → 21.3% — weather premium bled out rather than building	-1.57¢
Net	the realised move in the premium	+0.625¢

Read it plainly: **the directional call earned 4.93¢ — about 38% of the premium — and time plus volatility took 87% of it straight back**. Being right on the trajectory of the balance sheet is what paid. Our claim that weather premium was cheap to own was wrong — implied vol fell while we held — and the night-heat channel delivered a fraction of its forecast. The structure is what converted a partly-right thesis into a whole gain: capped downside, no stop to be shaken out of, and convexity pointed at the one revision that mattered.

THE TRADE · WHAT WAS ACTUALLY DONE

Three dates, one instrument, no revisions

DATE	ACTION	DETAIL	LEVEL
13 Jul	Thesis published	Weather-risk desk note on US corn, soybeans and wheat — issued before any position existed	Dec corn 463¾
17 Jul	Bought	CBOT December 2026 corn \$5.00 calls — the outright-call expression the note named for owning the tail above the strike	12.875¢ premium
12 Aug	Sold in full	Closed into the 20¢ WASDE-day spike — the USDA cutting yield to 180.7 — per the note's own rule: sell into the spike, never chase	13.50¢ premium

Result	+4.9% on capital at risk · 26 days · 1.7× the flat-price move	+0.625¢
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Why the structure mattered

This position was **deeply underwater before it worked**. December corn closed below our entry in 7 of the 18 sessions we held it and traded down to 460; on a modelled mark the calls were worth roughly 7.3¢ on 11 August, about **-43%** below cost — one session before we sold them at a profit. A futures position would have been stopped or trimmed somewhere in that stretch. Because the maximum loss was the premium and fixed at entry, there was nothing to manage and no reason to flinch.

Why the timing mattered

Our own backtest of five seasons had already told us the uncomfortable part: buying *after* a confirmed heat spike had not paid, with prices roughly flat that week and **−5% over the following fortnight**. So the note said buy before the catalyst window and sell into the spike. The spike turned out to be WASDE day, and the two fills are that rule executing — written down before any money was committed, which is the only time a rule is worth anything.

HONESTY BOX

We left the tail on the table. We sold into the 12 August spike because our own research said not to chase confirmed heat. The market kept going and December corn cleared \$5.00 by 20 August — above the strike we had owned. The rule protected us from the scenario where the rally faded, and it cost us the larger move. Both are true, and we would follow the rule again.

Our first entry rule was wrong. The note originally asked for a pullback into 435–445 before buying. It never came — corn never traded there again — and a version of this trade that waited would never have been executed at all. What made entry possible without a discount was the defined-risk option structure, where the premium is the loss and a better price is a bonus rather than a precondition. We ran the waiting version in a paper book to find out, and it finished flat, having never filled.

We are not annualising this. +4.9% over 26 days annualises to a number in the high double digits, and quoting it would be meaningless: pollination happens once a year, so there is no second window to redeploy into. One trade is one observation. It is evidence about process, not a rate of return.

Judge us on the process, not the prediction

Any forecaster can show you the calls that worked. Helios turns climate data into dated, falsifiable calls on agricultural supply, backs them with its own capital, and then publishes the scorecard — including a signal that missed. If you want the desk note this trade came from, or this method pointed at your own book, come and ask. hello@heliosai.com

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What this is. A single realised trade taken by Helios for its own account, sized as a small proprietary allocation. Results are stated as a percentage of capital at risk; because the allocation was deliberately small, absolute dollar figures would tell you nothing useful about the signal and are omitted. Position size is not disclosed. Returns are gross of commissions and fees.

Measured, and modelled. The two option prices are broker trade confirmations: CBOT December 2026 corn \$5.00 calls, bought 17 Jul 2026 at 12.875¢, sold 12 Aug 2026 at 13.50¢. Futures levels are CBOT December 2026 daily settlements. Everything else about the option is **modelled, not marked**: implied volatility, the premium decomposition and the interim mark-to-market are Black-76 values (zero rate, expiry taken as 20 Nov 2026) fitted to those two fills, with volatility interpolated between them. We did not hold daily broker marks, so the -43% trough is an estimate of magnitude, not a statement of a realised loss. No Sharpe or Sortino ratio is quoted because a single trade with two observations cannot support one.

Sources. Crop-risk index, observed night temperatures and their historical averages are production-weighted US corn series from the Helios platform, read on 21 August 2026; forecast figures are as published in the 13 July note (model run 1 July). The night-temperature yield elasticity is a Helios regression on 36 seasons (1990–2025) of observed US corn yield against Corn-Belt July–August night-temperature anomalies, detrended for technology. Balance-sheet references are USDA WASDE, 10 July and 12 August 2026 (August: US corn yield 180.7 bu/ac against a ~182.5 average trade guess, ending stocks ≈1.7 bn bu).

Important. One trade is one observation, not a track record, and past results do not indicate future performance. Helios is a climate and agricultural intelligence company. Nothing here is investment advice, a recommendation, an offer, or a solicitation to buy or sell any security, futures contract or option. Derivatives trading involves substantial risk of loss.

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