The WASDE Report-Level Revision Velocity Signal, A Meta Publication-Regime Lens

Reading the standard deviation of cell values within each monthly USDA WASDE report, 504-day rolling z-scored. Measures the churn or noise level of each publication. SPARSE firing (12 releases per year, N=189 firings). Marginally significant IC plus 0.145 at p=0.047.

David Stendahl · Market Lab Analytics · November 2, 2026

What this signal is, with the limits stated upfront

WASDE publishes a monthly supply-demand estimate across many commodities with hundreds of cells per release. When the across-cell standard deviation of a given WASDE spikes relative to its 504-day rolling baseline, something unusual is happening at the publication level: multiple cells are being revised simultaneously. This is a META signal about the publication regime itself.

The signal reads the across-cell standard deviation of each monthly WASDE release and 504-day z-scores it. Composite above plus 0.5 is WASDE Churn High. Composite below minus 0.5 is WASDE Churn Low. The middle band is Neutral.

Current reading, as of October 30, 2026: composite plus 0.71 (WASDE Churn High band). The October 2026 WASDE carried elevated cell-level revisions reconciling the 2025 US corn marketing year.

Daily Spearman IC against CBOT Corn fwd 60-day return is plus 0.145 at p-value 0.047 across 189 firing-day observations. This is a sparse signal — fires only on WASDE release days (approximately 12 per year). Interpret as a directional nudge rather than a high-conviction standalone trade.

Limits upfront: THIN SAMPLE (N=189 firings covering 16 years of monthly releases). Marginally significant IC. The signal captures publication-regime churn, not direct supply or demand fundamentals; interpret as a complement to the direct signals.

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How the WASDE churn composite composes

Direct observation: USDA WASDE monthly report. Across-cell standard deviation of all numeric cells per release.

Derived construction: 504-day rolling z-score of the across-cell std. Tanh-bound to minus 1 to plus 1. Fires only on WASDE release days (approximately 12 per year, published 2nd Friday of month).

State thresholds. Composite above plus 0.5 is WASDE Churn High. Composite below minus 0.5 is WASDE Churn Low. The middle band is Neutral.

The 504-day window captures roughly two years of monthly releases, enough to characterize the churn baseline through full market cycles.

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What the state-conditional returns have actually done

> **Reference baseline, CBOT Corn fwd 60-day unconditional**
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> CBOT Corn back-adjusted continuous forward-60-day return baseline over the full sample window of 1990-11-29 through 2026-10-30: mean plus 0.29 percent, median minus 1.01 percent, standard deviation 10.89 percent, percent negative 56.6 percent.

WASDE Churn Low (composite below minus 0.5) covers 0.5 percent of the sample. Per-day mean minus 3.99 percent, edge minus 4.28 pp below baseline. Rare quiet-publication state.

WASDE Churn Neutral (composite between minus 0.5 and plus 0.5) covers 97.2 percent of the sample. Per-day mean plus 0.54 percent, edge plus 0.24 pp above baseline. The dominant default state.

WASDE Churn High (composite above plus 0.5) covers 2.3 percent of the sample. Per-day mean plus 2.06 percent, edge plus 1.77 pp above baseline. Rare high-churn publication-day firings.

The extreme bands are very rare (under 3 percent combined). The sparse-sample statistics should be interpreted with caution; the firing-day IC on 189 firings is the cleaner read on the mechanism.

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Three cases that frame how to read this signal

Case 1: Aug 2012 WASDE. Drought-era revision spike.

The August 2012 WASDE sharply revised multiple cells (production, ending stocks, exports) as drought damage was quantified. The report-level churn signal fired into extreme-high. Corn rallied through subsequent weeks as the market priced the revisions.

Case 2: May 2019 WASDE. Prevent-plant uncertainty churn.

The May 2019 WASDE carried unusual churn as prevent-plant acreage estimates were adjusted multiple times. The signal fired churn-high. Corn had mixed response as the structural shock was priced.

Case 3: Oct 2026 WASDE. Current churn-high reading.

The October 2026 WASDE reconciled the 2025 US corn marketing year with meaningful ending-stocks and production adjustments. The report-level churn signal fires into WASDE Churn High (composite +0.71 as of October 30, 2026).

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How to use the signal today

As of November 2, 2026, the composite reads plus 0.71 and the state is WASDE Churn High. The historical pattern suggests mild above-baseline corn fwd 60-day (+1.77 pp edge) on such firings.

The signal is sparse and low-standalone-conviction. Use as a nudge-input alongside the direct supply-balance signals:

- **Z4393 US Corn Ending Stocks YoY.** The direct supply-balance signal from the same WASDE source.
- **Z2890 Corn Carryout Drift (WASDE Production Revisions).** The production-revisions signal from the same source.
- **Y852 Corn Cycle DNA.** The multi-input phenology-plus-condition playbook.

WASDE churn is a meta signal — use alongside the direct signals it accompanies.

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Methodology notes

Data sources. USDA WASDE monthly report. All numeric cell values across the publication.

Signal construction. Standard deviation across all cell values per release. 504-day rolling z-score. Tanh-bound to minus 1 to plus 1. Fires on WASDE release days only. State thresholds plus or minus 0.5 extreme and plus or minus 0.2 moderate. Target: CBOT Corn back-adjusted continuous.

Validation statistics. Daily Spearman IC against CBOT Corn fwd 60-day return is plus 0.145 at p-value 0.047 across 189 firing-day observations. Three-regime per-day means: WASDE Churn Low minus 3.99 percent (edge minus 4.28 pp vs plus 0.29 percent baseline, 0.5% of sample), WASDE Churn Neutral plus 0.54 percent (edge plus 0.24 pp, 97.2% of sample), WASDE Churn High plus 2.06 percent (edge plus 1.77 pp, 2.3% of sample).

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What this signal does not cover

First, the signal is SPARSE. 12 firings per year; low standalone statistical power.

Second, the signal is META (about publication churn), not direct supply or demand. Pair with the direct signals from the same source.

Third, the across-cell standard deviation treats all cells equally; large-magnitude cell revisions (e.g., production) are weighted the same as small-magnitude revisions (e.g., minor-destination exports).

Fourth, WASDE release-day effects can be confounded with other same-day news (crop progress reports, FAS export inspections) that correlate with release timing.

This research brief is for informational purposes only and does not constitute investment advice. Data sources: USDA WASDE monthly reports (all numeric cell values), CBOT Corn back-adjusted continuous target. State-conditional statistics computed through 2026-10-30.