KSU U.S. Export Demand Indices: Beef, Pork and Broiler Compared

Peaks, lows, and statistical tests of change over the whole period, last 10 years, last 5 years, and 2026 to date (Jan. 2010 = 100; data through September 2026)

https://agmanager.info/livestock-meat/meat-demand

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Data through September 2026 | November 12, 2026 (parallels the domestic retail demand index package)

What the indices measure — and how to compare them

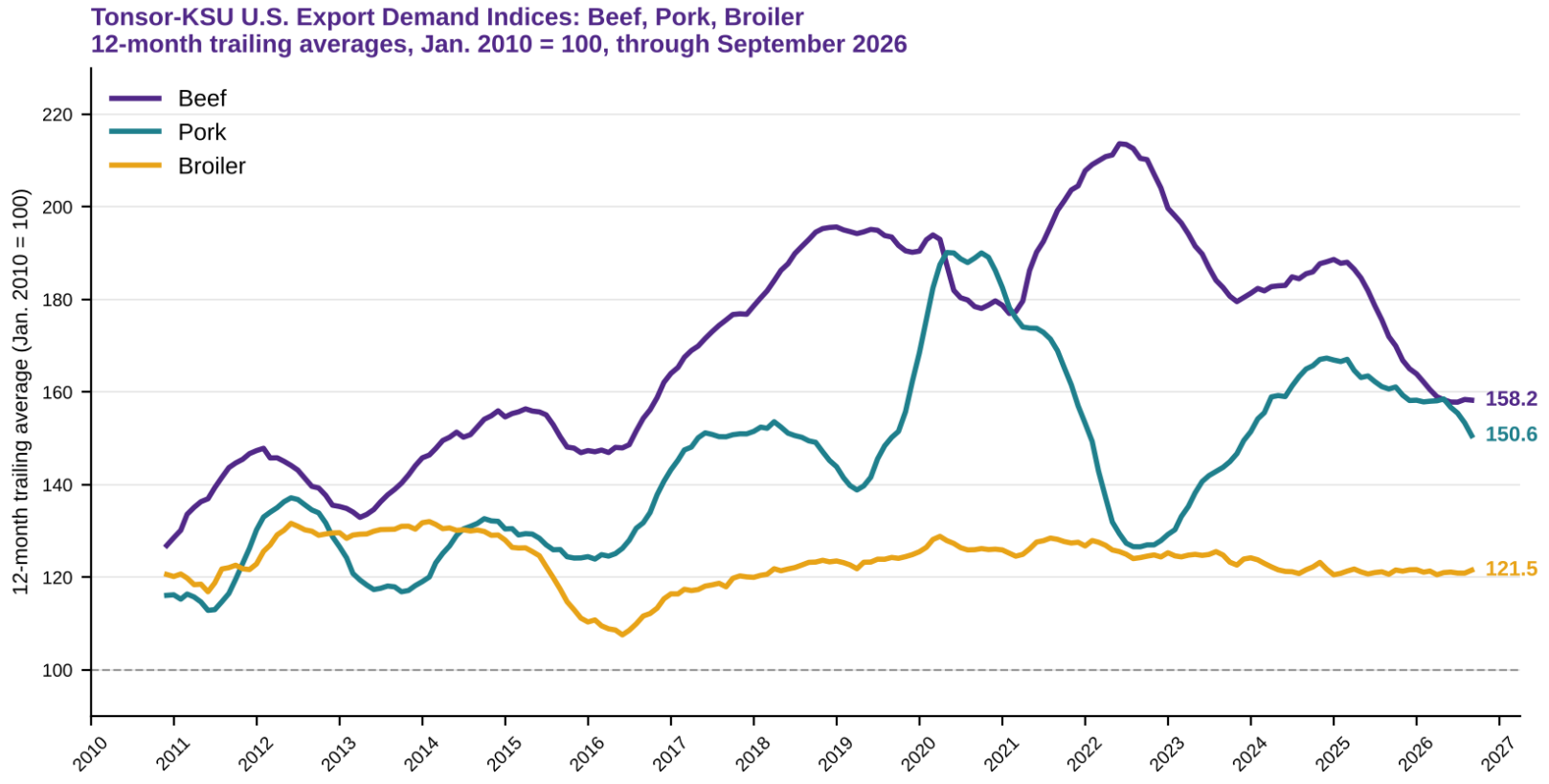
Each index is how much U.S. product foreign buyers purchased relative to what that month's export price would normally be expected to move. Rising = export demand shifted out; falling = export demand shifted in. Price effects are already netted out.

Levels are NOT comparable across products. Each index is scaled to its own Jan. 2010 = 100. Beef at 158 and broilers at 122 means beef export demand is 58% above its own 2010 level and broilers 22% above their own — not that beef export demand is 'bigger'. Levels are also not comparable to the domestic retail indices (Jan. 1988 base).

What IS comparable: growth rates, rankings within each series, turning points, and the statistical tests on this basis — which is what the following slides do.

Source: Glynn Tonsor, Kansas State University, AgManager.info (USDA data). Data through September 2026.

Three different stories, 2010–2026



Source: Glynn Tonsor, Kansas State University, AgManager.info (USDA data). Each index is scaled to its own Jan. 2010 = 100; levels compare each product to its own Jan. 2010 export demand, not to each other.

Beef: a rise, then four years of decline.
Export demand roughly doubled from the 2010 base (12-month-average low 126.9, Dec 2010) to a peak of 213.6 in Jun 2022, then fell to 158.2 by September 2026 — back to 2016 levels.

Pork: a 2020 spike, a rebound, and a sharp 2026 downturn.
Export demand grew through the 2010s, spiked to a 12-month-average peak of 190.1 in May 2020, collapsed to 127.9 by end-2022, and rebuilt to 167.3 by end-2024.

Broiler: stable in a narrow band.
Export demand has stayed within roughly 110–130 on a 12-month-average basis for 17 years: a peak of 132.0 in Feb 2014, a trough of 107.6 in Jun 2016, and a gradual drift lower since 2021 to 121.5.

Source: Glynn Tonsor, Kansas State University, AgManager.info (USDA data). Data through September 2026.

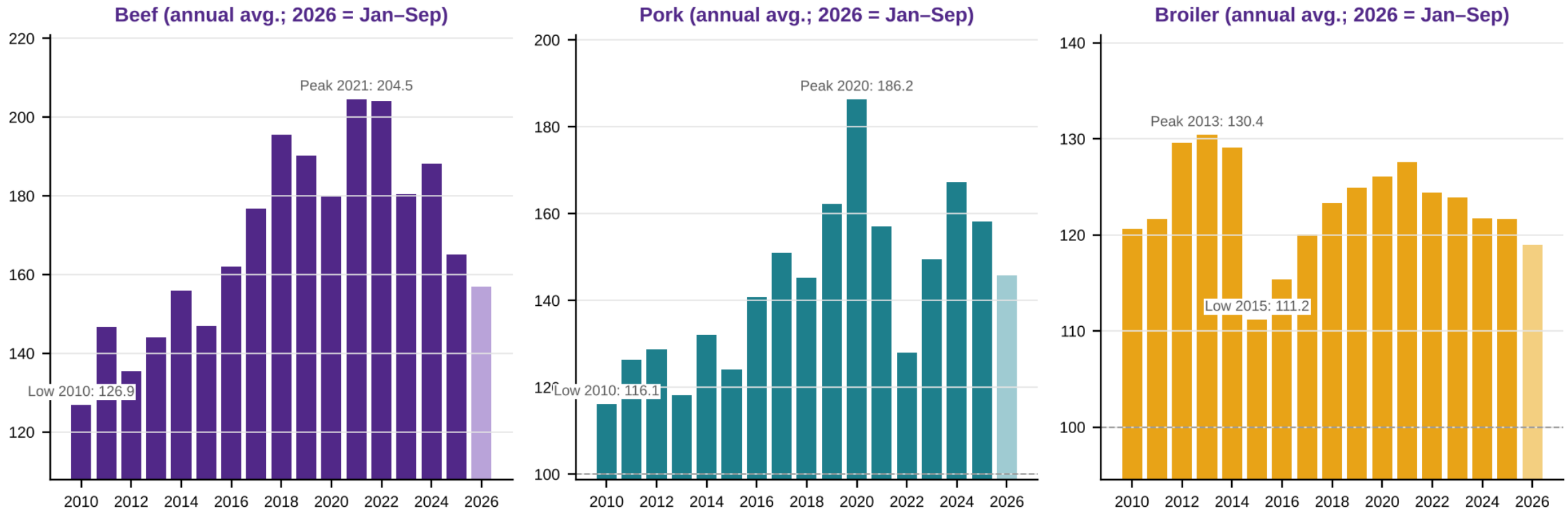
Peak and low periods

Measure	Beef	Pork	Broiler
Single-month high	230.8 (Aug 2021)	221.6 (Mar 2020)	148.2 (Oct 2011)
Single-month low	100.0 (Jan 2010)	100.0 (Jan 2010)	94.7 (Jan 2011)
12-month average: peak	213.6 (Jun 2022)	190.1 (May 2020)	132.0 (Feb 2014)
12-month average: trough	126.9 (Dec 2010)	112.9 (Jun 2011)	107.6 (Jun 2016)
Calendar-year average: peak	204.5 (2021)	186.2 (2020)	130.4 (2013)
Calendar-year average: low	126.9 (2010)	116.1 (2010)	111.2 (2015)
12-month average, Sep 2026 (rank of 190 monthly values)	158.2 (117th)	150.6 (73rd)	121.5 (130th)
2026 high / low month (observed to date)	173.2 (Mar 2026) / 138.7 (Sep 2026)	175.8 (Mar 2026) / 119.5 (Sep 2026)	127.3 (Mar 2026) / 110.7 (Apr 2026)
Jan–Sep 2026 average (rank of 17)	157.0 (10th)	145.8 (7th)	118.9 (12th)
Months of 2026 above year-earlier level (of 9)	1	4	5
Seasonally weakest / strongest month	Feb / Jul	Sep / Nov	Jan / Oct

Rank of 12 monthly 12-month averages: 1st = highest ever. Calendar-year peaks and lows are marked on the next slide.

Source: Glynn Tonsor, Kansas State University, AgManager.info (USDA data). Data through September 2026.

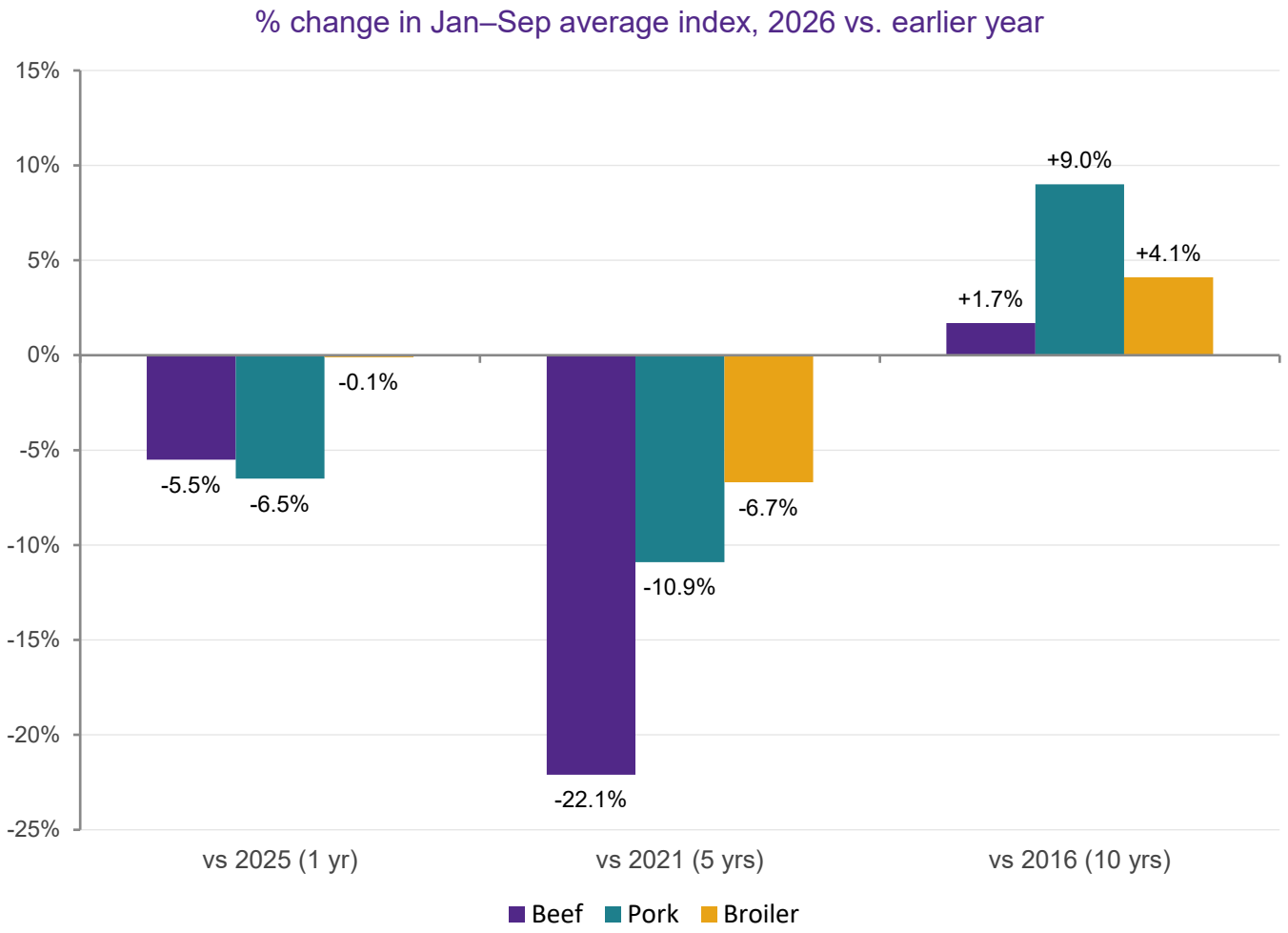
Annual averages with peak and low years



Lighter bar = Jan–Sep 2026 (partial year). Dashed line = Jan. 2010 base. Beef peaked in 2021–2022 and has fallen back to 2016 levels; pork spiked in 2020, collapsed in 2022, rebounded in 2024 and is turning down again; broilers peaked in 2013, bottomed in 2015 and have stayed in a narrow band since.

Source: Glynn Tonsor, Kansas State University, AgManager.info (USDA data). Data through September 2026.

January–September 2026 vs. 1, 5 and 10 years earlier



Jan–Sep 2026 vs.	Beef	Pork	Broiler
Jan–Sep 2026 average (rank of 17)	**157.0 (10th)**	**145.8 (7th)**	**118.9 (12th)**
2025 (1 year earlier)	-5.5%	-6.5%	-0.1%
2021 (5 years earlier)	-22.1%	-10.9%	-6.7%
2016 (10 years earlier)	+1.7%	+9.0%	+4.1%

Beef: 10th of 17.
Pork: 7th of 17.
Broiler: 12th of 17.

All three are below 2025 and well below 2021; all three remain above 2016. Beef's 5-year gap is the largest because 2021 was its peak.

Source: Glynn Tonsor, Kansas State University, AgManager.info (USDA data). Data through September 2026.

Has each index changed? Tests within each index

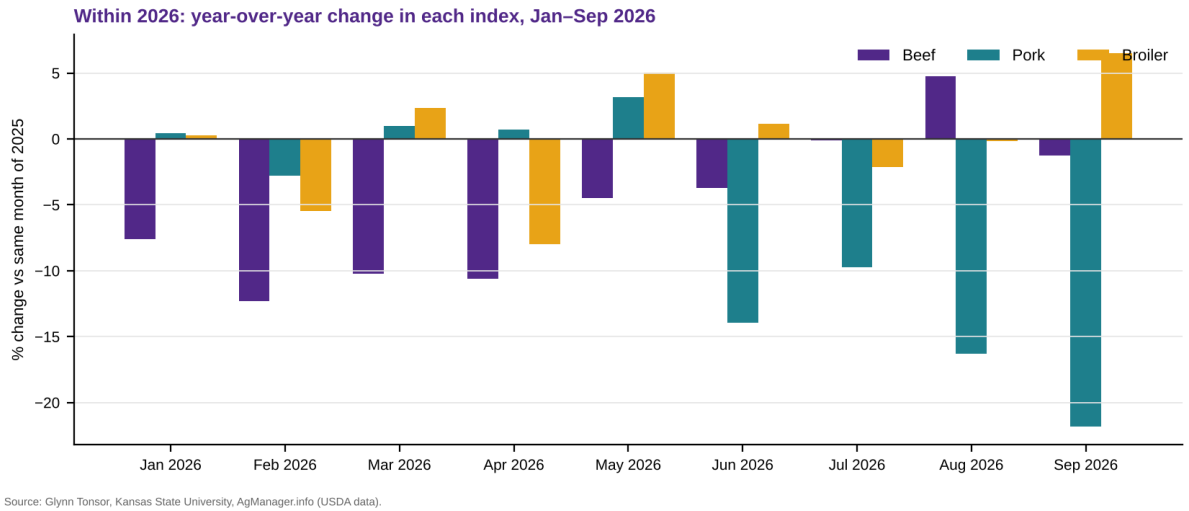
Index	Window	Trend, % per yr	p-value	Mean: 1st half → 2nd half	p-value (Welch t)
Beef	Whole period	**+2.13%**	<0.001 ***	150.7 → 185.8	<0.001 ***
Beef	Last 10 years	**-1.10%**	0.155 n.s.	187.9 → 181.8	0.085 *
Beef	Last 5 years	**-6.14%**	<0.001 ***	193.2 → 170.3	<0.001 ***
Pork	Whole period	**+1.92%**	<0.001 ***	130.7 → 155.7	<0.001 ***
Pork	Last 10 years	**-0.05%**	0.932 n.s.	161.6 → 149.3	0.002 ***
Pork	Last 5 years	**+4.60%**	0.026 **	140.9 → 157.7	<0.001 ***
Broiler	Whole period	**-0.00%**	0.982 n.s.	122.2 → 123.8	0.230 n.s.
Broiler	Last 10 years	**-0.03%**	0.910 n.s.	123.9 → 122.6	0.296 n.s.
Broiler	Last 5 years	**-0.80%**	<0.001 ***	124.2 → 121.0	0.047 **

*Trend = OLS of log index on time + monthly dummies, Newey–West (HAC) s.e., annualized. Mean test = Welch t on first vs second half of the window. Windows: whole = Jan 2010–Sep 2026; 10 yrs = Oct 2016–Sep 2026; 5 yrs = Oct 2021–Sep 2026. *** p<0.01, ** p<0.05, * p<0.10. 2026 to date is on the next slide.*

Read: beef grew significantly over the full period but has declined significantly over the last 5 years; pork grew over the full period, is flat over 10 years, and reads positive over 5 years only because that window starts at its 2022 trough; broilers show no trend over the full period or 10 years and a small significant decline over 5 years.

Source: Glynn Tonsor, Kansas State University, AgManager.info (USDA data). Data through September 2026.

Within 2026: January–September observed to date



Source: Glynn Tonsor, Kansas State University, AgManager.info (USDA data).

Index	Jan–Sep avg 2025 → 2026	Mean YoY change	Months up (of 9)	p-value (vs 0)
Beef	166.0 → 157.0	-5.1%	1	0.027 **
Pork	155.9 → 145.8	-6.6%	4	0.062 *
Broiler	119.1 → 118.9	-0.0%	5	0.976 n.s.

Pair (A vs B)	Mean YoY A vs B	Gap A − B	Months A > B	Paired-t p-value
Beef vs Pork	-5.1% vs -6.6%	+1.5 pts	4	0.749 n.s.
Beef vs Broiler	-5.1% vs -0.0%	-5.0 pts	2	0.027 **
Pork vs Broiler	-6.6% vs -0.0%	-6.5 pts	3	0.126 n.s.

*Unit of analysis = each 2026 month's % change vs the same month of 2025 (seasonality removed). Within-index: one-sample t vs 0. Pairwise: paired t on A − B by month. Slopes across the year (none significant) are in the Excel workbook. n = 9, so power is limited. *** p<0.01, ** p<0.05, * p<0.10.*

- **Beef:** eight of nine months below 2025; the average year-over-year change is -5.1% (t = -2.70, p = 0.027). But the trajectory is improving: the year-over-year change rose by +1.7 points per month across the nine months (p = 0.005), from -12.3% in February to roughly flat by July–September.
- **Pork:** the average year-over-year change is -6.6% (p = 0.062, marginal), but the average hides the story. January–May were flat; the year-over-year change then fell by -2.8 points per month across the year (p = 0.005), ending at -21.8% in September — the opposite trajectory to beef.
- **Broiler:** five months up, four down; the average year-over-year change is -0.0% and the slope across the year is not significant. No change within 2026.
    - **Pairwise within 2026:** on average levels, beef is significantly weaker than broilers (-5.0 points, paired t p = 0.027); beef vs pork and pork vs broiler are not distinguishable on average (p = 0.749 and 0.126). On trajectory, however, beef and pork diverged sharply: the beef-minus-pork gap in year-over-year change widened by +4.5 points per month (p = 0.001), and the pork-minus-broiler gap narrowed by 3.4 points per month (p = 0.006). With nine observations these tests have limited power.

Source: Glynn Tonsor, Kansas State University, AgManager.info (USDA data). Data through September 2026.

Do the indices move differently? Pairwise tests

Pair (A vs B)	Window	Growth gap A−B, % pts/yr	p-value	Mean YoY change, A vs B	p-value (Welch t)
Beef vs Pork	Whole period	**+0.21%**	0.699 n.s.	+2.25% vs +3.17%	0.568 n.s.
Beef vs Pork	Last 10 years	**-1.05%**	0.250 n.s.	+1.12% vs +3.05%	0.369 n.s.
Beef vs Pork	Last 5 years	**-10.27%**	<0.001 ***	-3.86% vs -0.69%	0.227 n.s.
Beef vs Broiler	Whole period	**+2.13%**	<0.001 ***	+2.25% vs +0.48%	0.122 n.s.
Beef vs Broiler	Last 10 years	**-1.07%**	0.080 *	+1.12% vs +1.09%	0.979 n.s.
Beef vs Broiler	Last 5 years	**-5.38%**	<0.001 ***	-3.86% vs -0.89%	0.067 *
Pork vs Broiler	Whole period	**+1.92%**	<0.001 ***	+3.17% vs +0.48%	0.068 *
Pork vs Broiler	Last 10 years	**-0.02%**	0.968 n.s.	+3.05% vs +1.09%	0.296 n.s.
Pork vs Broiler	Last 5 years	**+5.45%**	0.012 **	-0.69% vs -0.89%	0.934 n.s.

*Growth gap = trend regression on log(A) − log(B) with monthly dummies and HAC s.e.; positive = A grew faster than B. Mean YoY = Welch t comparing average year-over-year % change of A vs B. *** p<0.01, ** p<0.05, * p<0.10. Within-2026 pairwise tests are on the previous slide.*

Read: unlike the domestic series, the three export indices move largely independently (YoY correlations of 0.1–0.3). Over the last 5 years beef has fallen significantly faster than both pork and broilers; pork's 5-year advantage over broilers coincides with its window starting near its 2022 trough; over the full period beef and pork both outgrew broilers.

Source: Glynn Tonsor, Kansas State University, AgManager.info (USDA data). Data through September 2026.

Key takeaways

Beef

Eroding from the peak

Jan–Sep 2026 ranks 10th of 17, lowest since 2016; -6.1%/yr over 5 yrs and -5.1% vs 2025 within 2026 (both significant), but the 2026 gap narrowed through the year.

Pork

Turned down from June

Jan–Sep 2026 ranks 7th of 17 on average, but June–September ran 10–22% below 2025; the year-over-year change fell 2.8 pts/month across 2026 (significant).

Broiler

Stable, drifting lower

Jan–Sep 2026 ranks 12th of 17; flat vs 2025 within 2026; -0.8%/yr over 5 yrs; no trend over 10 years or the full period.

Bottom line: foreign demand for U.S. meat is softer in 2026 than in the 2020–2022 period for all three products, with different trajectories — beef's decline is slowing, pork's accelerated sharply from mid-year, and broilers are flat.

This contrasts with domestic retail indices, where beef and chicken demand are record highs.

The indices measure foreign demand for U.S. product; they are not trade-volume or price forecasts. 2026 is a partial year (nine months).

Source: Glynn Tonsor, Kansas State University, AgManager.info (USDA data). Data through September 2026.