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# Grain Transportation Report

December 28, 2023

A weekly publication of the Agricultural Marketing Service

[www.ams.usda.gov/GTR](http://www.ams.usda.gov/GTR)

## Panama Canal Eases Limits to Vessel Transits.

Beginning January 16, 2024, the Panama Canal Authority (PCA) [will increase](#) its number of daily vessel transits to 24. Citing greater than expected rainfall in November and the success of PCA’s “water-saving measures,” PCA canceled its previous plans to reduce daily transits to only 18 vessel transits per day by February 1, 2024. Currently, PCA allows 22 transits per day. During a normal year, the maximum sustainable number of transits per day is 38 to 40.

Although the Panama Canal restrictions have impacted all vessel types, bulk vessels carrying grain are some of the most affected. Other vessel types (e.g., cruise ships, container vessels, LNG tankers) are generally more successful than bulk vessels at obtaining transit slots, because the other vessels can pay higher tolls and provide more precise arrival times.

## Landus Enhances Grain Handling Capacity at Boone, IA, Facility.

To meet growing demand from producers, Landus—a grain elevator, processor, and retailer—is [upgrading its Boone, IA, facility](#), to create more grain storage for its area growers. Planned upgrades include two new grain bins with 3 million bushels of additional storage; a 7,000 bushels/hour dryer, which will raise total onsite drying capacity to 15,000 bushels/hour; and a 30,000 bushels/hour leg and receiving pit.

Landus will begin constructing the grain handling upgrades this spring, and expects them to be operational ahead of harvest 2024.

## DOT Offers \$1.5 Billion in RAISE Grants for Transportation Projects.

On November 30, the U.S. Department of Transportation (DOT) [announced](#) \$1.5 billion in grant funding available through the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) discretionary grant program for 2024.

With lower eligibility requirements than other DOT grants, RAISE grants help complete critical freight transportation infrastructure projects at the State and local levels. One 2023 project replaces nine bridges in poor condition across nine Iowa counties (\$24.8 million). Another project replaces 14 miles of 120-year-old track on the Hoosier Southern Railroad in Indiana (\$11.6 million). (See [the complete list of 2023 RAISE grant recipients](#).) [Applications for 2024 grants](#) are due by February 28, 2024.

## Iowa Reextends Harvest-Time Suspension on Overweight Limits.

Iowa [has reextended](#), through January 14, 2024, a proclamation that suspends normal limits on overweight loads for transporting grain, fertilizer, and manure. The proclamation allows vehicles to transport overweight loads without a permit, while moving corn, soybeans, hay, straw, silage, stover, fertilizer (dry, liquid and gas), and manure (dry and liquid). The order is intended to help manage, throughout the State, heavy traffic volumes of agricultural trucks that are generated by the harvest.

The decree applies to agricultural loads transported on all Iowa highways (except interstates) and loads less than 90,000 pounds

gross weight that do not exceed either the State’s maximum axle weight limits by more than 12.5 percent or Federal law’s maximum axle weight limit of 20,000 pounds. In addition, vehicles with overweight loads must comply with posted weight limits on roads and bridges.



## Export Sales

For the week ending December 14, [unshipped balances](#) of wheat, corn, and soybeans for marketing year (MY) 2023/24 totaled 38.54 million metric tons (mmt), up 2 percent from last week and up 13 percent from the same time last year.

Net [corn export sales](#) for MY 2023/24 were 1.013 mmt, down 29 percent from last week. Net [soybean export sales](#) were 1.989 mmt, up 84 percent from last week. Net weekly [wheat export sales](#) were 0.323 mmt, down 78 percent from last week.

## Rail

U.S. Class I railroads originated 28,538 [grain carloads](#) during the week ending December 16. This was a 13-percent increase from the previous week, 9 percent more than last year, and 4 percent more than the 3-year average.

Average January [shuttle secondary railcar bids/offers](#) (per car) were \$138 above tariff for the week ending December 21. This was \$63 less than last week and \$1,096 lower than this week last year. Average non-shuttle secondary railcar bids/offers per car were \$231 above tariff. This was \$81 more than last week and \$494 lower than this week last year.

## Barge

For the week ending December 23, [barged grain movements](#) totaled 508,946 tons. This was 23 percent less than the previous week and 19 percent less than the same period last year.

For the week ending December 23, 316 grain barges [moved down river](#)—82 fewer than last week. Data for [unloaded](#) grain barges are not currently available for the week ending December 23.

## Ocean

For the week ending December 21, 31 [oceangoing grain vessels](#) were loaded in the Gulf—unchanged from the same period last year. Within the next 10 days (starting December 22), 40 vessels were expected to be loaded—5 percent more than the same period last year.

As of December 21, no bulk ocean freight rates were available because of the public holiday.

## Fuel

For the week ending December 26, the U.S. average [diesel price](#) increased 2.0 cents from the previous week to \$3.914 per gallon, 62.3 cents below the same week last year.



Dear Readers,

We thank you for your efforts to provide efficient and reliable transportation for American farmers, businesses, and consumers. In the highly competitive, ever-evolving business of U.S. grains and oilseeds, we know that insightful, timely, and reliable information is key to your decisions. Through the [Grain Transportation Report \(GTR\)](#) and our other products, we strive to provide the information you need.

Our weekly feature articles cover new and perennial topics surrounding transportation costs; [barge](#), [rail](#), and [ocean](#) issues; and the [outlook for containerized grain exports](#). This year, GTR staff also wrapped up several USDA-funded [cooperative research projects](#), exploring such topics as farm-to-market trucking characteristics in the Central Plains region; the prospects for developing inland ports to alleviate congestion at West Coast ports; and short- and long-haul competition between truck and rail movements. As the Surface Transportation Board (STB) and the Federal Maritime Commission proposed new and modified rules/regulatory issues this year, [USDA advocated](#) to those bodies on behalf of agricultural shippers.

GTR staff continue offering new and better products. For the first time in over 15 years, the GTR unveiled a [revamped design](#), offering a slick new look and formatting that is accessible to all readers. In recent weeks, GTR staff also published two new products on USDA's Agricultural Transportation Open Data

Platform—“[Transportation at a Glance](#)” and an upgraded version of the “[Transportation Updates and Regulatory News](#)” report.

## Synopsis of Agricultural Transportation in 2023

- **Year-to-Year Grain Inspections Fell.** As of December 21, total year-to-date (YTD) grain inspections for export fell below the same period for 2022. YTD inspections were around 105.5 million metric tons (mmt)—down from 129.9 mmt for the same period last year, with corn down 24 percent, soybeans down 15 percent, and wheat down 13 percent.

Most of the decline in YTD corn inspections owed to a 64-percent drop in inspections destined to China—from 15.4 mmt for the same period last year to 5.5 mmt this year. Also, from last year to this year, the decline in YTD soybean inspections was largely due to a decrease in inspections destined to several Asian countries. The decline in YTD wheat inspections from the same period last year was mostly due to lower inspections destined to Latin America and Africa.

- **Barge Shipments Faced Many Obstacles.** Similar to last year, the barge industry faced many challenges this year. In the spring, high water levels due to snow melt in the upper Mississippi River closed all the locks north of St. Louis, MO. Then, in the summer, low water levels throughout

the Mississippi River System (MRS) led to draft restrictions of up to 28 percent, tow restrictions of up to 38 percent, and travel delays of 3 or more days.

For most of the year, the southbound weekly grain volumes through the MRS lagged behind last year and the previous 5-year average. Weekly grain volumes declined the most during last spring's lock closures and during the summer's draft and tow restrictions. Despite the year's multiple challenges to barge traffic, barge spot rates did not climb to their 2022 levels. At Memphis, TN, the river gauge reached another all-time-low of -11.02 feet on September 14, and at St. Louis, MO, the gauge reached a yearly low of -3.68 feet on September 10.

However, the spot rate was mostly unaffected by the MRS's low-water conditions: during the week of September 26, the spot rate at St. Louis, MO, was \$52.91/ton—well below the record-high rate of \$105.85/ton during the week of October 11, 2022. For the week ending December 23, YTD barged grain shipments were 25.9 million tons—down 20 percent from last year and down 27 percent from the previous 3-year average.

- **Rail Service Improved Amid Low Volume.** The dire rail service challenges of 2022 lasted into early 2023 before abating in the spring. For example, the number of unfilled orders for empty grain cars in

manifest service peaked at 18,851 in January 2023 before falling to under 1,000 in May. Rail service improvements may have been due to below-average carloads. Nationally, annual grain rail carloads in 2023 were about 10 percent lower than in 2022. Total rail traffic was down as well—mainly because of below-average rail movements of shipping containers.

For the rail industry, 2023 was an eventful year. In March, STB approved the merger of Canadian Pacific Railway and Kansas City Southern Railway—paving the way for the creation of CPKC in April. In September, STB issued proposed rules for reciprocal switching for inadequate service—the latest development in STB’s consideration of the issue, spanning over a decade.

Most recently, the temporary closure of two major rail crossings on the U.S.-Mexico border disrupted exports to Mexico, the largest buyer of U.S. corn. This unexpected setback highlighted again both how varied the challenges to shipping can be and how important transportation is to the global supply chain.

- **Ocean Freight Rates Rose Toward Year’s End.** Ocean freight rates were volatile this year: after falling in the first quarter along with lower seasonal demand, ocean freight rates rose slightly in the second quarter; then dropped again in the third quarter; and so far, have risen again in the fourth quarter. Ocean freight rates have been affected by such factors as extreme weather;

the end of the Black Sea Grain Initiative; weakened grain demand from China; increased vessel capacity; and restricted passage of the Panama Canal because of low water levels.

As of the week ending December 14, the rate for shipping a metric ton of grain to Japan from the U.S. Gulf was \$60.75—up from the same week a year ago and up from the first available rate at the beginning of the year. Also, as of the week ending December 14, the rate for shipping a metric ton of grain to Japan from the Pacific Northwest was \$31.75—down from the same week a year ago, but up from the first available rate at the beginning of the year. YTD as of December 21, 1,304 grain vessels were loaded in the U.S. Gulf, versus 1,431 vessels in 2022.

- **Fuel Prices Dropped in 2023.** After reaching record highs in 2022, fuel prices dropped in 2023. From the week ending February 6 to the week ending June 12 (except for 1 week), the U.S. average diesel price fell continuously, dropping by a total of 82.8 cents per gallon. From the week ending July 24 through the week ending October 23, the price rose 73.9 cents per gallon because of a rise in global oil demand and multiple cuts in oil production.

Over the last 8 weeks—from the week ending October 30 to the week ending December 18—the U.S. average diesel price again fell 65.1 cents per gallon because of

declining crude oil prices that responded to record-high U.S. and Brazilian oil production. The dip in the average diesel price also reflected softening demand from China. Yet, despite this volatility, from January to November 2023, the average diesel price was 17 percent above the prior 3-year average.

According to the U.S. Energy Information Administration’s December [Short-Term Energy Outlook](#), the 2024 retail diesel price is expected to average \$3.95 per gallon, 7 percent below the expected average of \$4.22 per gallon for 2023. The expected price drop is due to EIA’s projection of increased global oil production (despite the decision of OPEC+ to limit production). The anticipated price drop also reflects slightly lower global oil consumption.

## Happy New Year

We hope our insights and analysis facilitated well-informed transportation and marketing decisions in 2023, and we look forward to continuing to serve you in 2024. Many thanks to all industry and government representatives whose tireless work provides the necessary information and data to produce this report. We wish all our readers and contributors a safe, healthy, and prosperous New Year!

Sincerely,

[The GTR Team](#)

Grains are transported to the domestic and international markets via one or a combination of the following modes: truck, rail, barge and ocean-going vessel. Monitoring the cost of transportation for each mode is vital to the marketing decision making process.

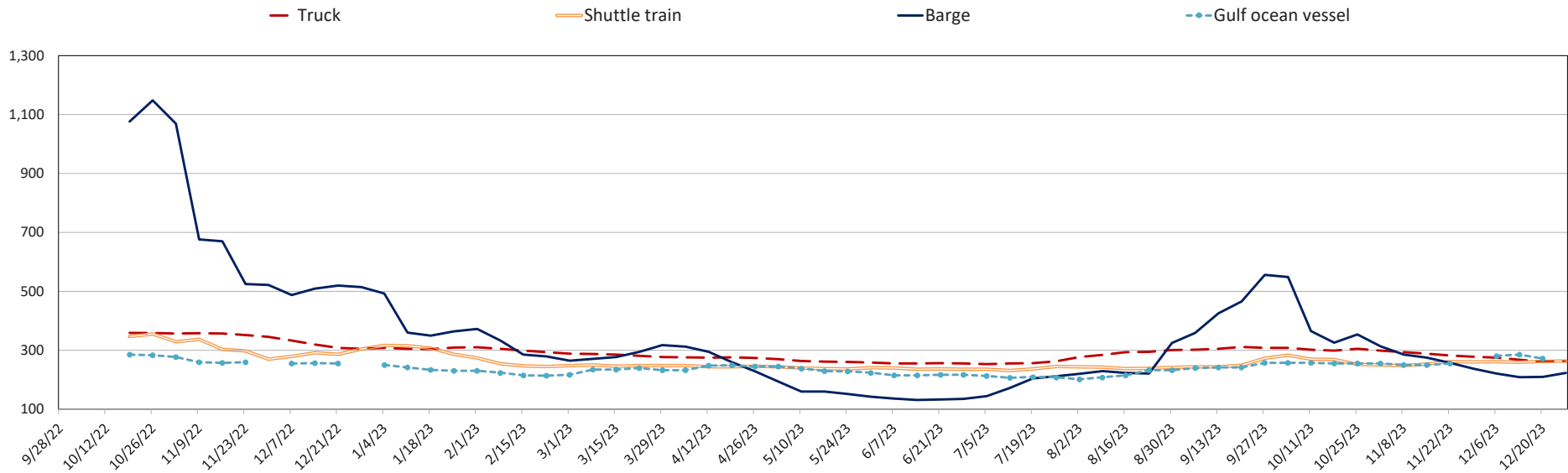
**Table 1. Grain transport cost indicators**

For the week ending:	Truck	Rail		Barge	Ocean	
		Non-shuttle	Shuttle		Gulf	Pacific
12/27/23	263	338	265	223	n/a	n/a
12/20/23	261	340	263	210	272	225
12/28/22	304	369	316	514	n/a	n/a

Note: Indicator: Base year 2000 = 100. Weekly updates include truck = diesel (\$/gallon); rail = near-month secondary rail market bid and monthly tariff rate with fuel surcharge (\$/car); barge = Illinois River barge rate (index = percent of tariff rate); ocean = routes to Japan (\$/metric ton); n/a = not available due to holiday.

Source: USDA, Agricultural Marketing Service.

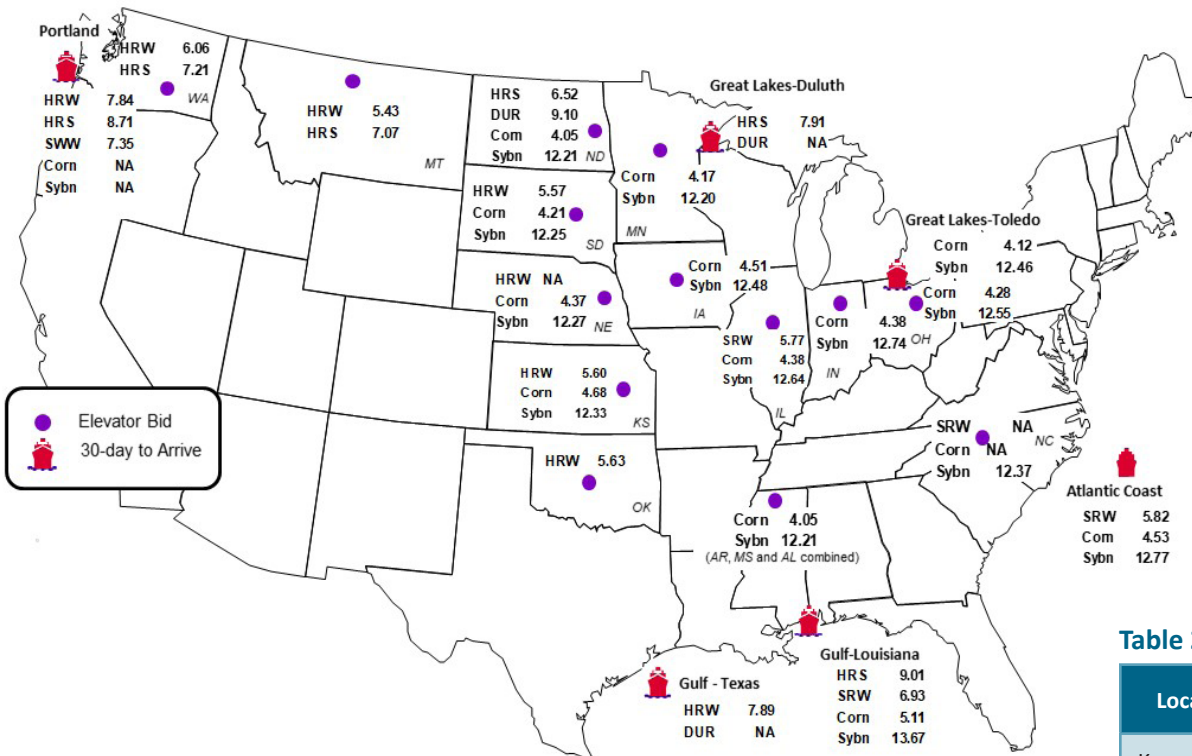
**Figure 1. Grain transportation cost indicators as of week ending 12/27/23**



Source: USDA, Agricultural Marketing Service.

**Figure 2. Grain bid summary**

The grain bid summary illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.



Inland bids: 12% HRW, 14% HRS, #1 SRW, #1 DUR, #1 SWW, #2 Y Corn, #1 Y Soybeans  
 Export bids: Ord HRW, 14% HRS, #2 SRW, #2 DUR, #2 SWW, #2 Y Corn, #1 Soybeans  
 Note: HRW = Hard red winter wheat, HRS = Hard red spring wheat, SRW = Soft red winter wheat, DUR = Durum, SWW = Soft white winter wheat, Y = Yellow, Ord = Ordinary. Data from tables 2a and 2b derived from map information.  
 Sources: U.S. Inland: GeoGrain, USDA Weekly Bids, U.S. Export: Corn & Soybean - Export Grain Bids, AMS, USDA Wheat Bids - Weekly Wheat Report, U.S. Wheat Associates, Washington, DC.

**Table 2a. Market update: U.S. origins to export position price spreads (\$/bushel)**

Commodity	Origin-destination	12/22/2023	12/15/2023
Corn	IL-Gulf	-0.73	-0.88
Corn	NE-Gulf	-0.74	-0.89
Soybean	IA-Gulf	-1.18	-1.03
HRW	KS-Gulf	-2.29	-2.09
HRS	ND-Portland	-2.19	-1.91

Note: nq = no quote; n/a = not available; HRW = hard red winter wheat; HRS = hard red spring wheat.  
 Source: USDA, Agricultural Marketing Service.

**Table 2b. Futures**

Location	Grain	Month	12/22/2023	Week ago 12/15/2023	Year ago 12/23/2022
Kansas City	Wheat	Dec	6.230	6.326	8.730
Minneapolis	Wheat	Dec	7.142	7.306	9.246
Chicago	Wheat	Dec	6.162	6.222	7.684
Chicago	Corn	Dec	4.730	4.790	6.642
Chicago	Soybean	Jan	13.062	13.300	14.786

Sources: U.S. Inland: GeoGrain, USDA Weekly Bids, U.S. Export: Corn & Soybean - Export Grain Bids, AMS, USDA Wheat Bids - Weekly Wheat Report, U.S. Wheat Associates, Washington, DC.

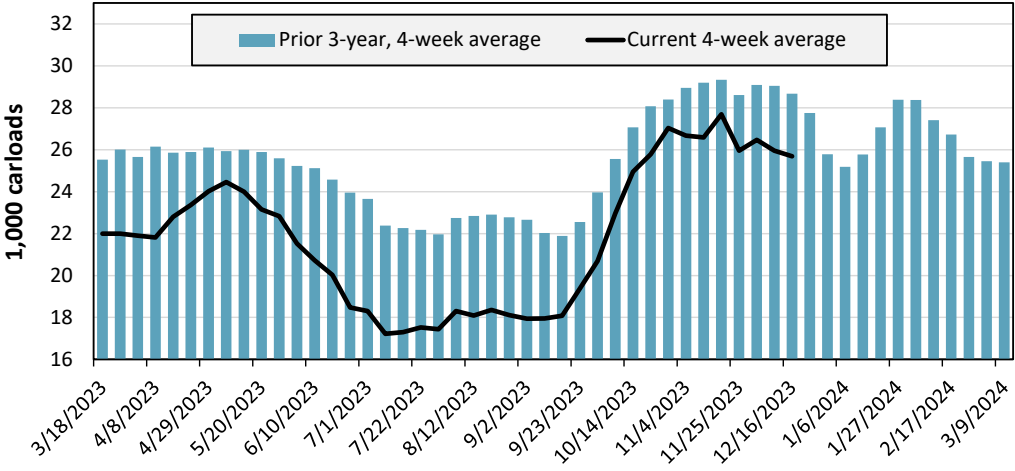
**Table 3. Class I rail carrier grain car bulletin (grain carloads originated)**

For the week ending: 12/16/2023	East		West		Central U.S.		U.S. total
	CSXT	NS	BNSF	UP	CPKC	CN	
This week	2,435	2,817	12,039	6,984	3,342	921	28,538
This week last year	2,320	3,398	10,604	5,352	2,840	1,679	26,193
2023 YTD	88,248	123,651	469,349	263,884	124,649	63,543	1,133,324
2022 YTD	90,102	125,366	553,583	287,839	134,615	80,278	1,271,783
2023 YTD as % of 2022 YTD	98	99	85	92	93	79	89
Last 4 weeks as % of 2022	82	85	104	99	95	59	95
Last 4 weeks as % of 3-yr. avg.	84	97	91	89	94	66	90
Total 2022	93,392	129,293	571,376	297,775	140,039	83,680	1,315,555

Note: The last 4-week percentages compare the last 4 weeks of this year to the closest 4 weeks of last year, and to the average across the prior 3 years. NS = Norfolk Southern; UP = Union Pacific; CN = Canadian National; CPKC = Canadian Pacific Kansas City; YTD = year-to-date; avg. = average; yr. = year. CPKC and CN report carloads for their U.S.-operations only, so the U.S. total reflects originated carloads for all six Class I railroads.

Source: Surface Transportation Board.

**Figure 3. Total weekly U.S. Class I railroad grain carloads**



For the 4 weeks ending December 16, grain carloads were down 1 percent from the previous week, down 5 percent from last year, and down 10 percent from the 3-year average.

Source: Surface Transportation Board.

**Table 4. Railcar auction offerings (dollars per car)**

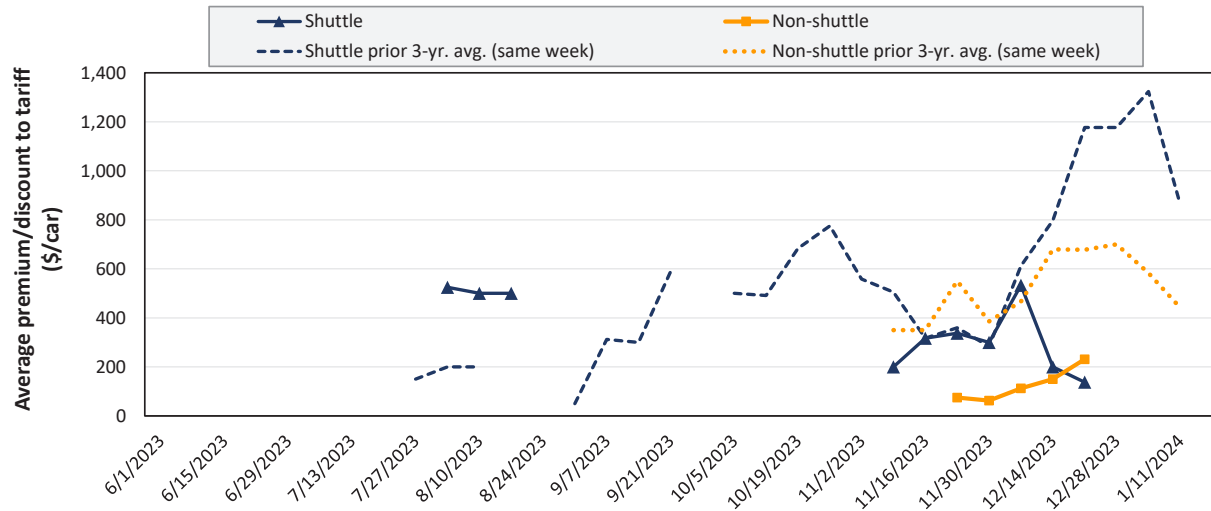
For the week ending: 12/21/2023		Delivery period							
		Jan-24	Jan-23	Feb-24	Feb-23	Mar-24	Mar-23	Apr-24	Apr-23
BNSF	COT grain units	no offer	n/a	no offer	n/a	no offer	n/a	19	n/a
	COT grain single-car	n/a	n/a	no offer	n/a	no offer	n/a	105	n/a
UP	GCAS/vouchers	n/a	n/a	10	n/a	10	n/a	no bid	n/a

Note: Auction offerings are for single-car and unit train shipments only. Bids and offers represent a premium/discount to tariff rates. n/a = not available. BNSF = BNSF Railway; COT = Certificate of Transportation; UP = Union Pacific Railroad; and GCAS = Grain Car Allocation System. Minimum bids for UP GCAS/vouchers are \$10. Source: USDA, Agricultural Marketing Service.



Primary auction market rates reflect offers and bids made between railroads and shippers for guaranteed car service. The secondary rail market information reflects trade values for service agreements traded between shippers that were originally purchased from the railroad carrier. The auction and secondary rail values are indicators of rail service quality and demand/supply. Bids and offers listed in the primary and secondary auctions are market indicators only and are not guaranteed prices.

**Figure 4: Secondary market bids/offers for railcars to be delivered in January 2024**



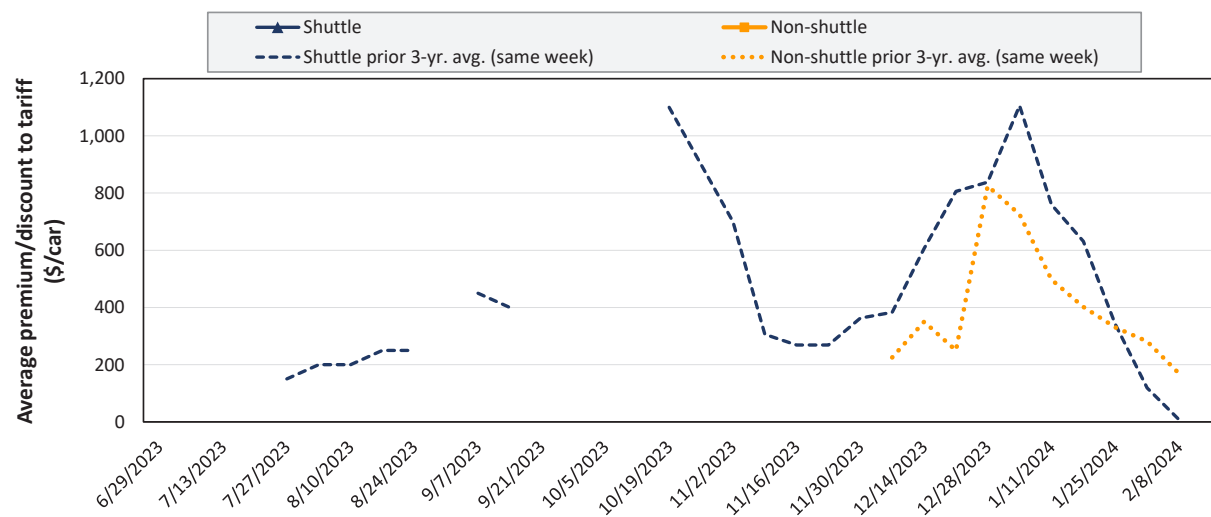
Average non-shuttle bids/offers rose \$81 this week, and are at the peak.

Average shuttle bids/offers fell \$63 this week and are \$396 below the peak.

	12/21/2023	BNSF	UP
Non-Shuttle		\$500	-\$38
Shuttle		\$350	-\$75

Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year; BNSF = BNSF Railway; UP = Union Pacific Railroad.  
Source: USDA, Agricultural Marketing Service analysis of data from Tradewest Brokerage Company and the Malsam Company.

**Figure 5: Secondary market bids/offers for railcars to be delivered in February 2024**



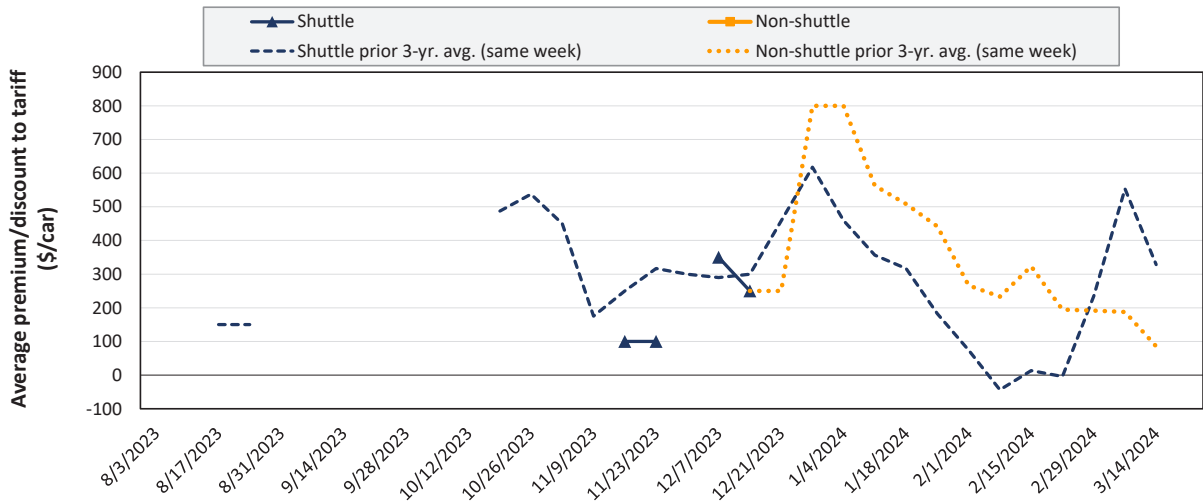
There were no non-shuttle bids/offers this week.

There were no shuttle bids/offers this week.

	12/21/2023	BNSF	UP
Non-Shuttle		n/a	n/a
Shuttle		n/a	n/a

Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year; BNSF = BNSF Railway; UP = Union Pacific Railroad.  
Source: USDA, Agricultural Marketing Service analysis of data from Tradewest Brokerage Company and the Malsam Company.

**Figure 6: Secondary market bids/offers for railcars to be delivered in March 2024**



There were no non-shuttle bids/offers this week.

There were no shuttle bids/offers this week.

12/21/2023	BNSF	UP
Non-Shuttle	n/a	n/a
Shuttle	n/a	n/a

Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year; BNSF = BNSF Railway; UP = Union Pacific Railroad.  
 Source: USDA, Agricultural Marketing Service analysis of data from Tradewest Brokerage Company and the Malsam Company.

**Table 5. Weekly secondary railcar market (dollars per car)**

For the week ending: 12/21/2023		Delivery period					
		Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24
Non-shuttle	BNSF	500	n/a	n/a	n/a	n/a	n/a
	Change from last week	175	n/a	n/a	n/a	n/a	n/a
	Change from same week 2022	-300	n/a	n/a	n/a	n/a	n/a
	UP	-38	n/a	n/a	n/a	n/a	n/a
	Change from last week	-13	n/a	n/a	n/a	n/a	n/a
	Change from same week 2022	-688	n/a	n/a	n/a	n/a	n/a
Shuttle	BNSF	350	n/a	n/a	n/a	n/a	n/a
	Change from last week	-250	n/a	n/a	n/a	n/a	n/a
	Change from same week 2022	-917	n/a	n/a	n/a	n/a	n/a
	UP	-75	n/a	n/a	n/a	n/a	n/a
	Change from last week	125	n/a	n/a	n/a	n/a	n/a
	Change from same week 2022	-1,275	n/a	n/a	n/a	n/a	n/a
	CPKC	200	0	n/a	n/a	n/a	n/a
	Change from last week	100	n/a	n/a	n/a	n/a	n/a
Change from same week 2022	-700	n/a	n/a	n/a	n/a	n/a	

Note: Bids and offers represent a premium/discount to tariff rates; n/a = not available; BNSF = BNSF Railway; UP = Union Pacific Railroad; CPKC = Canadian Pacific Kansas City.  
 Source: USDA, Agricultural Marketing Service analysis of data from Tradewest Brokerage Company and the Malsam Company.

The tariff rail rate is the base price of freight rail service. Together with fuel surcharges and any auction and secondary rail values, the tariff rail rate constitutes the full cost of shipping by rail. Typically, auction and secondary rail values are a small fraction of the full cost of shipping by rail relative to the tariff rate. However, during times of high rail demand or short supply, high auction and secondary rail values can exceed the cost of the tariff rate plus fuel surcharge.

**Table 6. Tariff rail rates for unit train shipments**

December 2023	Origin region	Destination region	Tariff rate/car	Fuel surcharge per car	Tariff plus surcharge per metric ton	Tariff plus surcharge per bushel	Percent Change Y/Y
Wheat	Wichita, KS	St. Louis, MO	\$4,095	\$248	\$43.13	\$1.17	4
	Grand Forks, ND	Duluth-Superior, MN	\$4,008	\$95	\$40.75	\$1.11	2
	Wichita, KS	Los Angeles, CA	\$7,340	\$490	\$77.75	\$2.12	-5
	Wichita, KS	New Orleans, LA	\$4,825	\$436	\$52.25	\$1.42	2
	Sioux Falls, SD	Galveston-Houston, TX	\$7,111	\$402	\$74.61	\$2.03	-4
	Colby, KS	Galveston-Houston, TX	\$5,075	\$478	\$55.14	\$1.50	2
	Amarillo, TX	Los Angeles, CA	\$5,121	\$665	\$57.46	\$1.56	-3
Corn	Champaign-Urbana, IL	New Orleans, LA	\$4,000	\$493	\$44.62	\$1.13	-3
	Toledo, OH	Raleigh, NC	\$8,877	\$0	\$88.15	\$2.24	4
	Des Moines, IA	Davenport, IA	\$2,830	\$104	\$29.14	\$0.74	5
	Indianapolis, IN	Atlanta, GA	\$6,866	\$0	\$68.18	\$1.73	4
	Indianapolis, IN	Knoxville, TN	\$5,790	\$0	\$57.50	\$1.46	4
	Des Moines, IA	Little Rock, AR	\$4,425	\$307	\$46.99	\$1.19	2
	Des Moines, IA	Los Angeles, CA	\$6,305	\$893	\$71.48	\$1.82	-1
Soybeans	Minneapolis, MN	New Orleans, LA	\$3,156	\$738	\$38.67	\$1.05	-39
	Toledo, OH	Huntsville, AL	\$7,269	\$0	\$72.18	\$1.96	3
	Indianapolis, IN	Raleigh, NC	\$8,169	\$0	\$81.12	\$2.21	4
	Indianapolis, IN	Huntsville, AL	\$5,921	\$0	\$58.80	\$1.60	4
	Champaign-Urbana, IL	New Orleans, LA	\$5,040	\$493	\$54.94	\$1.50	1

Note: A unit train refers to shipments of at least 25 cars. Shuttle train rates are generally available for qualified shipments of 75-120 cars that meet railroad efficiency requirements. The table assumes 111 short tons (100.7 metric tons) per car, 56 pounds per bushel of corn, and 60 pounds per bushel of wheat and soybeans. Percentage change year to year (Y/Y) is calculated using the tariff rate plus fuel surcharge  
 Source: BNSF Railway, Canadian National Railway, CSX Transportation, and Union Pacific Railroad.

**Table 7. Tariff rail rates for shuttle train shipments**

December 2023	Origin region	Destination region	Tariff rate/car	Fuel surcharge per car	Tariff plus surcharge per metric ton	Tariff plus surcharge per bushel	Percent Change Y/Y
Wheat	Great Falls, MT	Portland, OR	\$4,543	\$282	\$47.91	\$1.30	-0
	Wichita, KS	Galveston-Houston, TX	\$4,611	\$219	\$47.97	\$1.31	4
	Chicago, IL	Albany, NY	\$7,413	\$0	\$73.61	\$2.00	5
	Grand Forks, ND	Portland, OR	\$6,201	\$486	\$66.41	\$1.81	-2
	Grand Forks, ND	Galveston-Houston, TX	\$5,549	\$507	\$60.13	\$1.64	-2
	Colby, KS	Portland, OR	\$5,923	\$784	\$66.60	\$1.81	-3
Corn	Minneapolis, MN	Portland, OR	\$5,660	\$592	\$62.09	\$1.58	-5
	Sioux Falls, SD	Tacoma, WA	\$5,620	\$542	\$61.20	\$1.55	-5
	Champaign-Urbana, IL	New Orleans, LA	\$4,345	\$493	\$48.04	\$1.22	1
	Lincoln, NE	Galveston-Houston, TX	\$4,560	\$316	\$48.42	\$1.23	0
	Des Moines, IA	Amarillo, TX	\$4,845	\$386	\$51.94	\$1.32	1
	Minneapolis, MN	Tacoma, WA	\$5,660	\$588	\$62.04	\$1.58	-5
	Council Bluffs, IA	Stockton, CA	\$5,780	\$608	\$63.43	\$1.61	-2
Soybeans	Sioux Falls, SD	Tacoma, WA	\$6,335	\$542	\$68.30	\$1.86	-4
	Minneapolis, MN	Portland, OR	\$6,385	\$592	\$69.29	\$1.89	-5
	Fargo, ND	Tacoma, WA	\$6,235	\$482	\$66.71	\$1.82	-4
	Council Bluffs, IA	New Orleans, LA	\$5,270	\$568	\$57.98	\$1.58	0
	Toledo, OH	Huntsville, AL	\$5,509	\$0	\$54.71	\$1.49	4
	Grand Island, NE	Portland, OR	\$5,905	\$802	\$66.61	\$1.81	-1

Note: A unit train refers to shipments of at least 25 cars. Shuttle train rates are generally available for qualified shipments of 75-120 cars that meet railroad efficiency requirements. The table assumes 111 short tons (100.7 metric tons) per car, 56 pounds per bushel of corn, and 60 pounds per bushel of wheat and soybeans. Percentage change year to year (Y/Y) is calculated using the tariff rate plus fuel surcharge.

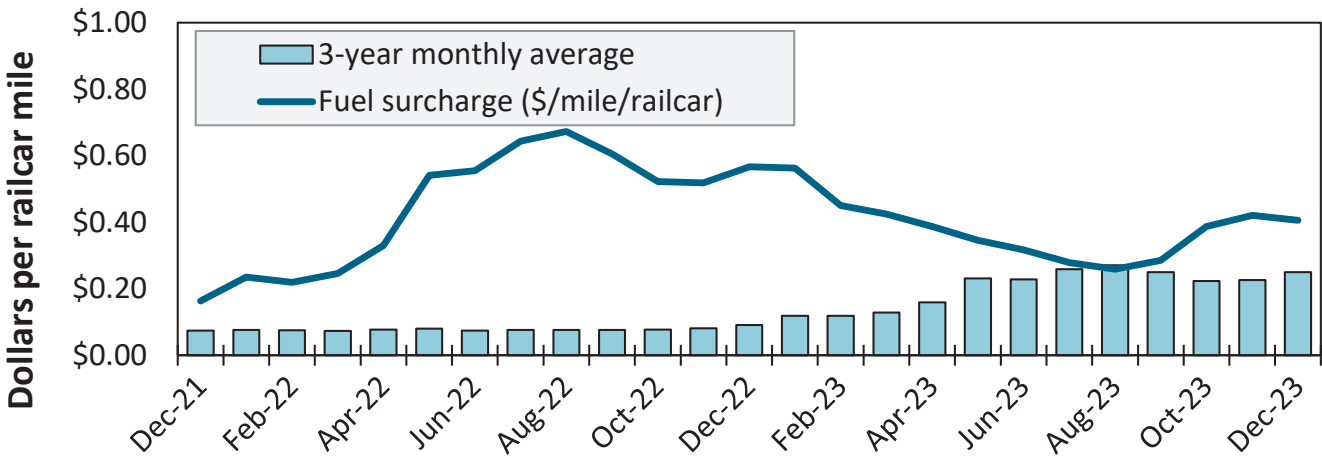
Source: BNSF Railway, Canadian National Railway, CSX Transportation, and Union Pacific Railroad.

**Table 8. Tariff rail rates for U.S. bulk grain shipments to Mexico**

December 2021	Origin state	Destination region	Tariff rate per car	Fuel surcharge per car	Tariff rate plus fuel surcharge per:		Percent change Y/Y
					metric ton	bushel	
Wheat	MT	Chihuahua, CI	\$7,699	\$0	\$78.67	\$2.14	4
	OK	Cuautitlan, EM	\$6,900	\$230	\$72.85	\$1.98	6
	KS	Guadalajara, JA	\$7,619	\$719	\$85.19	\$2.32	7
	TX	Salinas Victoria, NL	\$4,420	\$138	\$46.57	\$1.27	4
Corn	IA	Guadalajara, JA	\$9,102	\$663	\$99.77	\$2.53	6
	SD	Celaya, GJ	\$8,300	\$0	\$84.81	\$2.15	2
	NE	Queretaro, QA	\$8,322	\$462	\$89.75	\$2.28	5
	SD	Salinas Victoria, NL	\$6,905	\$0	\$70.55	\$1.79	0
	MO	Tlalnepantla, EM	\$7,687	\$450	\$83.14	\$2.11	5
	SD	Torreón, CU	\$7,825	\$0	\$79.95	\$2.03	2
Soybeans	MO	Bojay (Tula), HG	\$8,647	\$614	\$94.63	\$2.57	5
	NE	Guadalajara, JA	\$9,207	\$646	\$100.67	\$2.74	5
	IA	El Castillo, JA	\$9,510	\$0	\$97.17	\$2.64	1
	KS	Torreón, CU	\$8,109	\$466	\$87.61	\$2.38	5
Sorghum	NE	Celaya, GJ	\$7,932	\$597	\$87.15	\$2.21	6
	KS	Queretaro, QA	\$8,108	\$287	\$85.77	\$2.18	3
	NE	Salinas Victoria, NL	\$6,713	\$231	\$70.94	\$1.80	3
	NE	Torreón, CU	\$7,225	\$438	\$78.29	\$1.99	6

Note: Rates are based on published tariff rates for high-capacity shuttle trains. Shuttle trains are available for qualified shipments of 75-110 cars that meet railroad efficiency requirements. The table assumes 97.87 metric tons per car, 56 pounds per bushel for corn and sorghum, and 60 pounds per bushel for wheat and soybeans. Percentage change year over year (Y/Y) is calculated using the tariff rate plus fuel surcharge. **As of January 1, both BNSF and Union Pacific changed their billing and reporting of rates to Mexico. As we incorporate the change, table 8 updates will be delayed.** Source: BNSF Railway, Union Pacific Railroad, Kansas City Southern.

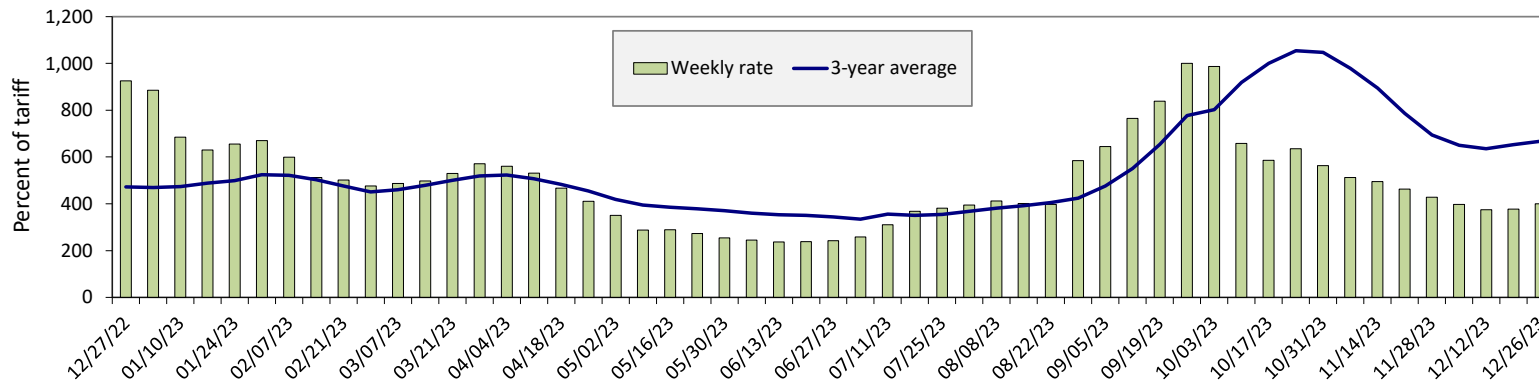
**Figure 7. Railroad fuel surcharges, North American weighted average**



December 2023: \$0.41/mile, down 1 cent from last month's surcharge of \$0.42/mile; down 16 cents from the December 2022 surcharge of \$0.57/mile; and up 16 cents from the December prior 3-year average of \$0.25/mile.

Note: Weighted by each Class I railroad's proportion of grain traffic for the prior year. Source: BNSF Railway, Canadian National Railway, CSX Transportation, Canadian Pacific Railway, Union Pacific Railroad, Kansas City Southern Railway, Norfolk Southern Corporation.

**Figure 8. Illinois River barge freight rate**



For the week ending December 26: 6 percent higher than the previous week; and 57 percent lower than last year; and 40 percent lower than the 3-year average.

Note: Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); 3-year avg. = 4-week moving average of the 3-year average.  
Source: USDA, Agricultural Marketing Service.

**Table 9. Weekly barge freight rates: southbound only**

Measure	Date	Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate	12/26/2023	-	-	401	319	343	343	272
	12/19/2023	-	-	378	322	333	333	270
\$/ton	12/26/2023	-	-	18.61	12.73	16.09	13.86	8.54
	12/19/2023	-	-	17.54	12.85	15.62	13.45	8.48
Measure	Time Period	Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Current week % change from the same week	Last year	-	-	-57	-61	-57	-57	-56
	3-year avg.	-	-	-40	-46	-44	-44	-45
Rate	January	-	-	415	318	340	340	280
	March	-	-	390	301	330	330	272

Note: Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); 3-year avg. = 4-week moving average of the 3-year avg.; ton = 2,000 pounds; "-" = data not available.  
Source: USDA, Agricultural Marketing Service.

**Figure 9. Benchmark tariff rates**



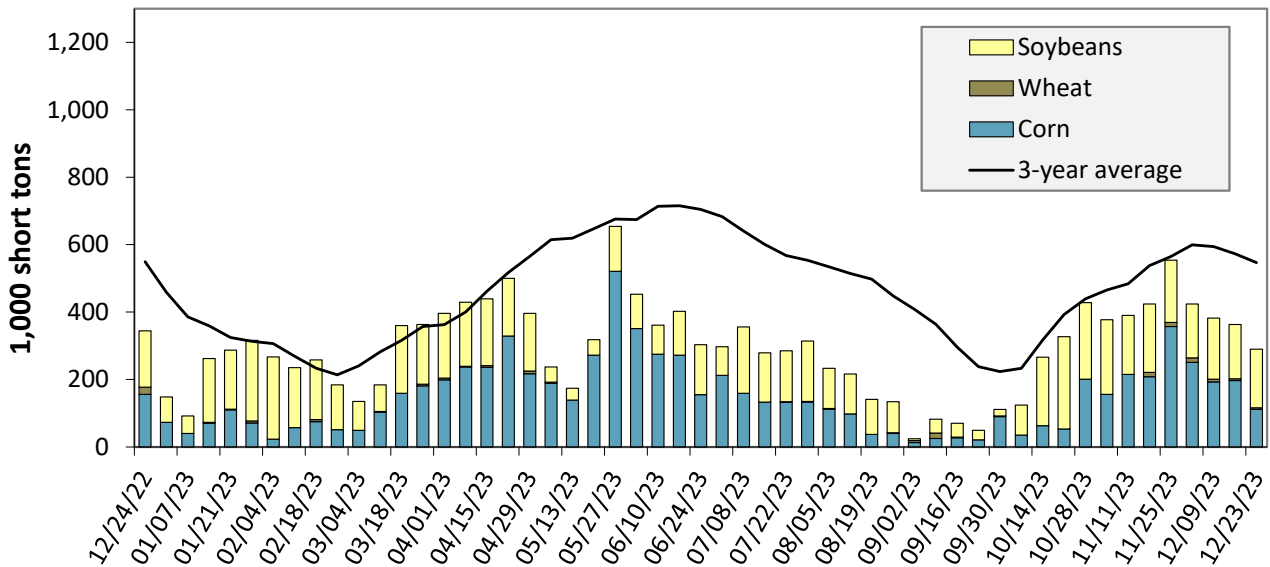
**Calculating barge rate per ton:**

$$\text{(Rate} \times \text{1976 tariff benchmark rate per ton)} / 100$$

Select applicable index from market quotes are included in tables on this page. The 1976 benchmark rates per ton are provided in map.

Source: USDA, Agricultural Marketing Service.

**Figure 10. Barge movements on the Mississippi River (Locks 27-Granite City, IL)**



For the week ending December 23: 16 percent lower than last year and 47 percent lower than the 3-year average.

Note: The 3-year average is a 4-week moving average. The U.S. Army Corps of Engineers has recently migrated its lock and vessel database and has noted the latest data may be revised in coming weeks.

Source: U.S. Army Corps of Engineers.

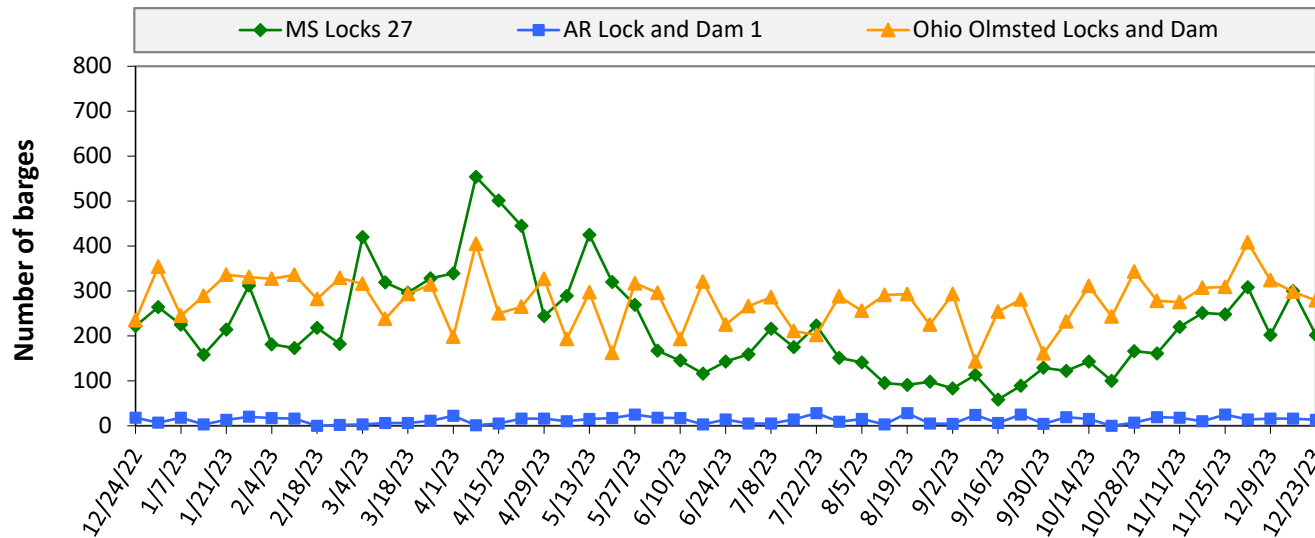
**Table 10. Barged grain movements (1,000 tons)**

For the week ending 12/23/2023	Corn	Wheat	Soybeans	Other	Total
Mississippi River (Rock Island, IL (L15))	0	0	0	0	0
Mississippi River (Winfield, MO (L25))	22	5	66	0	93
Mississippi River (Alton, IL (L26))	105	5	158	0	268
Mississippi River (Granite City, IL (L27))	111	5	174	0	290
Illinois River (La Grange)	49	0	56	13	117
Ohio River (Olmsted)	101	2	82	4	188
Arkansas River (L1)	0	14	17	0	31
Weekly total - 2023	212	21	273	4	509
Weekly total - 2022	245	26	353	2	626
2023 YTD	12,685	1,327	11,594	251	25,857
2022 YTD	16,286	1,583	14,226	231	32,325
2023 as % of 2022 YTD	78	84	82	109	80
Last 4 weeks as % of 2022	115	128	60	927	83
Total 2022	16,437	1,594	14,464	232	32,727

Note: "Other" refers to oats, barely, sorghum, and rye. Total may not add up due to rounding. YTD = year to date. Weekly total, YTD, and calendar year total include Mississippi River lock 27, Ohio River Olmsted lock, and Arkansas Lock 1. "L" (as in "L15") refers to a lock, locks, or lock and dam facility. The U.S. Army Corps of Engineers has recently migrated its lock and vessel database and has noted the latest data may be revised in coming weeks.

Source: U.S. Army Corps of Engineers.

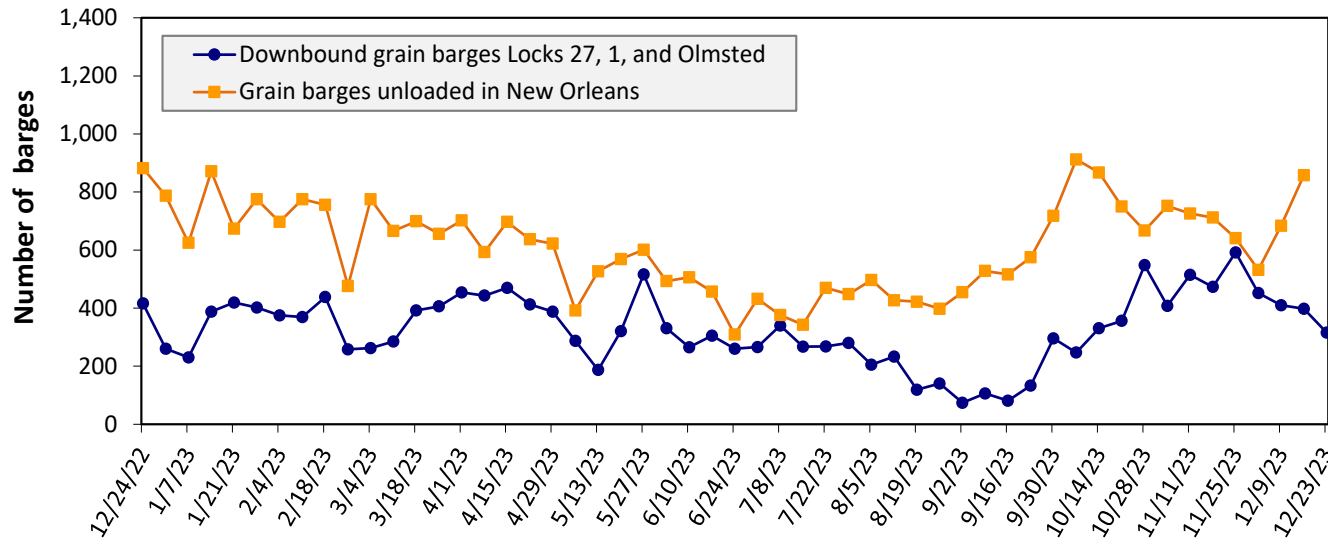
**Figure 11. Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam**



For the week ending December 23: 494 barges transited the locks, 120 barges fewer than the previous week, and 24 percent lower than the 3-year average.

Note: The U.S. Army Corps of Engineers has recently migrated its lock and vessel database and has noted the latest data may be revised in coming weeks.  
Source: U.S. Army Corps of Engineers.

**Figure 12. Grain barges for export in New Orleans region**



For the week ending December 23: 316 barges moved down river, 82 fewer than the previous week. Data for unloaded grain barges are not currently available for the week ending December 23.

Note: Olmsted = Olmsted Locks and Dam. The U.S. Army Corps of Engineers has recently migrated its lock and vessel database and has noted the latest data may be revised in coming weeks.  
Source: U.S. Army Corps of Engineers and USDA, Agricultural Marketing Service.



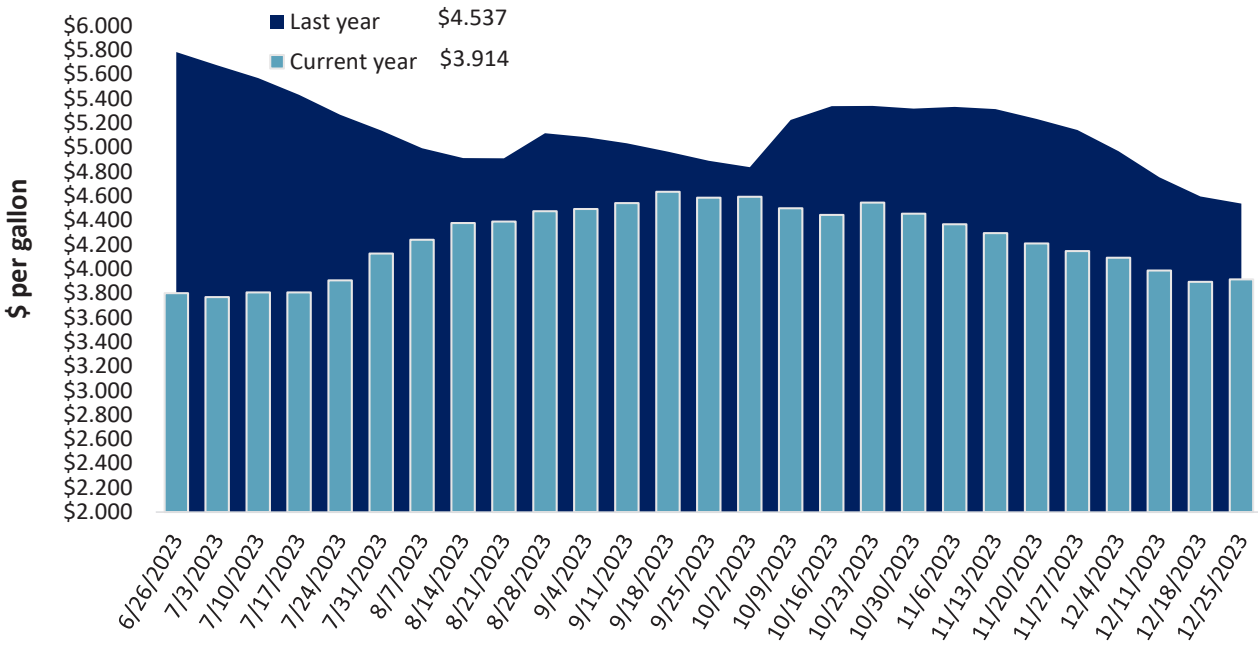
The weekly diesel price provides a proxy for trends in U.S. truck rates as diesel fuel is a significant expense for truck grain movements.

**Table 11. Retail on-highway diesel prices, week ending 12/25/2023 (U.S. \$/gallon)**

Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	4.022	0.053	-0.786
	New England	4.339	-0.023	-0.807
	Central Atlantic	4.323	-0.013	-0.963
	Lower Atlantic	3.879	0.086	-0.725
II	Midwest	3.798	-0.008	-0.604
III	Gulf Coast	3.608	0.039	-0.556
IV	Rocky Mountain	3.916	-0.017	-0.829
V	West Coast	4.651	-0.004	-0.417
	West Coast less California	4.169	0.016	-0.597
	California	5.202	-0.029	-0.213
Total	United States	3.914	0.020	-0.623

Note: Diesel fuel prices include all taxes. Prices represent an average of all types of diesel fuel. On June 13, 2022, the Energy Information Administration implemented a new methodology to estimate weekly on-highway diesel fuel prices.  
 Source: U.S. Department of Energy, Energy Information Administration.

**Figure 13. Weekly diesel fuel prices, U.S. average**



For the week ending December 25, the U.S. average diesel fuel price increased 2.0 cents from the previous week to \$3.914 per gallon, 62.3 cents below the same week last year.

Note: On June 13, 2022, the Energy Information Administration implemented a new methodology to estimate weekly on-highway diesel fuel prices.  
 Source: U.S. Department of Energy, Energy Information Administration.

**Table 12. U.S. export balances and cumulative exports (1,000 metric tons)**

Grain Exports		Wheat					Corn	Soybeans	Total	
		Hard red winter (HRW)	Soft red winter (SRW)	Hard red spring (HRS)	Soft white wheat (SWW)	Durum				All wheat
Current unshipped (outstanding) export sales	For the week ending 12/14/2023	953	2,399	1,548	1,117	112	6,128	17,750	14,662	38,539
	This week year ago	946	596	1,356	1,190	113	4,201	12,417	17,545	34,163
	Last 4 wks. as % of same period 2022/23	104	302	114	88	107	131	139	81	108
Current shipped (cumulative) exports sales	2023/24 YTD	1,594	1,829	3,171	1,886	249	8,729	10,429	20,698	39,857
	2022/23 YTD	3,008	1,714	3,030	2,362	129	10,244	8,223	24,789	43,255
	YTD 2023/24 as % of 2022/23	53	107	105	80	193	85	127	83	92
	Total 2022/23	4,872	2,695	5,382	4,414	395	17,759	39,469	52,208	109,435
	Total 2021/22	7,172	2,786	5,254	3,261	196	18,669	59,764	57,189	135,622

Note: The marketing year for wheat is Jun. 1 to May 31 and, for corn and soybeans, Sep. 1 to Aug. 31. YTD = year-to-date; wks. = weeks.

Source: USDA, Foreign Agricultural Service.

**Table 13. Top 5 importers of U.S. corn**

For the week ending 12/14/2023	Total commitments (1,000 mt)		% change current MY from last MY	Exports 3-year average 2020-22 (1,000 mt)
	YTD MY 2023/24	YTD MY 2022/23		
Mexico	13,248	10,054	32	15,227
China	1,685	3,726	-55	12,616
Japan	4,007	1,613	148	10,273
Columbia	2,115	320	560	4,398
Korea	401	20	1896	2,563
<b>Top 5 importers</b>	<b>21,457</b>	<b>15,733</b>	<b>36</b>	<b>45,077</b>
<b>Total U.S. corn export sales</b>	<b>28,179</b>	<b>20,640</b>	<b>37</b>	<b>56,665</b>
% of YTD current month's export projection	53%	49%		
Change from prior week	1,013	637		
<b>Top 5 importers' share of U.S. corn export sales</b>	<b>76%</b>	<b>76%</b>		<b>80%</b>
<b>USDA forecast December 2023</b>	<b>53,343</b>	<b>42,192</b>	<b>26</b>	
<b>Corn use for ethanol USDA forecast, December 2023</b>	<b>135,255</b>	<b>131,471</b>	<b>3</b>	

Note: The top 5 importers are based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for marketing year (MY) 2022/23 (Sep. 1 – Aug. 31). "Total commitments" = cumulative exports (shipped) + outstanding sales (unshipped), from FAS weekly export sales report, or export sales query. Total commitments' change (net sales) from prior week could include revisions from previous week's outstanding sales or accumulated sales. In rightmost column, "Exports" = carryover plus accumulated exports (as defined in FAS marketing year ranking reports). mt = metric ton; yr. = year; avg. = average; YTD = year to date.

Source: USDA, Foreign Agricultural Service.

**Table 14. Top 5 importers of U.S. soybeans**

For the week ending 12/14/2023	Total commitments (1,000 mt)		% change current MY from last MY	Exports 3-year average 2020-22 (1,000 mt)
	YTD MY 2023/24	YTD MY 2022/23		
China	18,962	25,106	-24	32,321
Mexico	3,025	3,178	-5	4,912
Egypt	272	746	-64	2,670
Japan	1,189	1,350	-12	2,259
Indonesia	673	625	8	1,973
<b>Top 5 importers</b>	<b>24,120</b>	<b>31,005</b>	<b>-22</b>	<b>44,133</b>
<b>Total U.S. soybean export sales</b>	<b>35,360</b>	<b>42,334</b>	<b>-16</b>	<b>56,656</b>
% of YTD current month's export projection	74%	78%		
<b>Change from prior week</b>	<b>1,989</b>	<b>665</b>		
<b>Top 5 importers' share of U.S. soybean export sales</b>	<b>68%</b>	<b>73%</b>		<b>78%</b>
<b>USDA forecast, December 2023</b>	<b>47,763</b>	<b>54,213</b>	<b>-12</b>	

Note: The top 5 importers are based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for marketing year (MY) 2022/23 (Sep. 1 – Aug. 31). "Total commitments" = cumulative exports (shipped) + outstanding sales (unshipped), from FAS weekly export sales report, or export sales query. Total commitments' change (net sales) from prior week could include revisions from previous week's outstanding sales or accumulated sales. In rightmost column, "Exports" = carryover plus accumulated export (as defined in FAS marketing year ranking reports). mt = metric ton; yr. = year; avg. = average; YTD = year to date.

Source: USDA, Foreign Agricultural Service.

**Table 15. Top 10 importers of all U.S. wheat**

For the week ending 12/14/2023	Total commitments (1,000 mt)		% change current MY from last MY	Exports 3-year average 2020-22 (1,000 mt)
	YTD MY 2023/24	YTD MY 2022/23		
Mexico	2,260	2,420	-7	3,397
Philippines	2,003	1,715	17	2,615
Japan	1,433	1,580	-9	2,281
China	2,195	616	256	1,740
Korea	975	1,004	-3	1,426
Nigeria	189	663	-71	1,276
Taiwan	825	547	51	944
Thailand	312	557	-44	643
Columbia	212	407	-48	537
Indonesia	389	299	30	469
<b>Top 10 importers</b>	<b>10,793</b>	<b>9,808</b>	<b>10</b>	<b>15,327</b>
<b>Total U.S. wheat export sales</b>	<b>14,857</b>	<b>14,445</b>	<b>3</b>	<b>20,411</b>
% of YTD current month's export projection	75%	70%		
Change from prior week	323	334		
<b>Top 10 importers' share of U.S. wheat export sales</b>	<b>73%</b>	<b>68%</b>		<b>75%</b>
<b>USDA forecast, December 2023</b>	<b>19,731</b>	<b>20,657</b>	<b>-4</b>	

Note: The top 5 importers are based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for marketing year (MY) 2022/23 (Sep. 1 – Aug. 31). "Total commitments" = cumulative exports (shipped) + outstanding sales (unshipped), from FAS weekly export sales report, or export sales query. Total commitments' change (net sales) from prior week could include revisions from previous week's outstanding sales or accumulated sales. In rightmost column, "Exports" = carryover plus accumulated export (as defined in FAS marketing year ranking reports). mt = metric ton; yr. = year; avg. = average; YTD = year to date.

Source: USDA, Foreign Agricultural Service.

**Table 16. Grain inspections for export by U.S. port region (1,000 metric tons)**

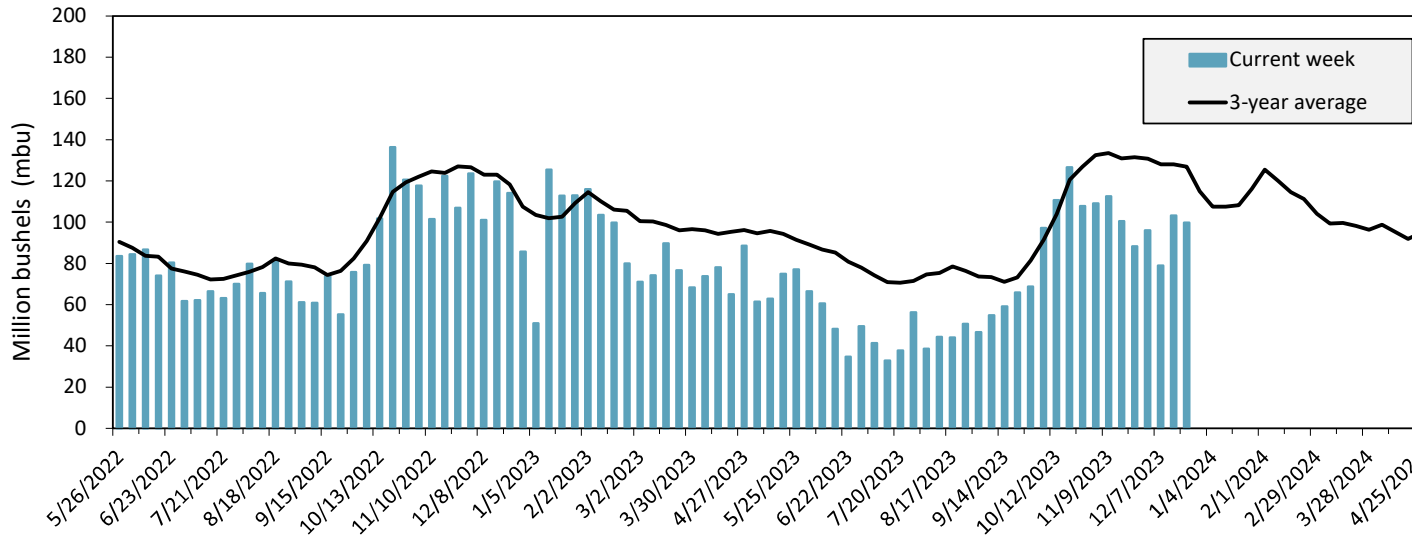
Port regions	Commodity	For the week ending 12/21/2023	Previous week*	Current week as % of previous	2023 YTD*	2022 YTD*	2023 YTD as % of 2022 YTD	Last 4-weeks as % of:		2022 total*
								Last year	Prior 3-yr. avg.	
Pacific Northwest	Wheat	273	122	224	9,925	9,836	101	102	89	9,836
	Corn	212	243	87	4,980	9,548	52	166	126	9,615
	Soybeans	243	301	81	10,405	14,034	74	53	50	14,178
	<b>Total</b>	<b>728</b>	<b>666</b>	<b>109</b>	<b>25,310</b>	<b>33,418</b>	<b>76</b>	<b>82</b>	<b>73</b>	<b>33,629</b>
Mississippi Gulf	Wheat	39	38	101	3,435	4,047	85	272	237	4,053
	Corn	612	440	139	22,482	30,313	74	117	105	30,781
	Soybeans	664	930	71	27,531	30,109	91	63	55	31,283
	<b>Total</b>	<b>1,315</b>	<b>1,408</b>	<b>93</b>	<b>53,449</b>	<b>64,469</b>	<b>83</b>	<b>79</b>	<b>70</b>	<b>66,116</b>
Texas Gulf	Wheat	29	29	100	1,637	3,401	48	29	34	3,421
	Corn	9	20	42	381	648	59	90	97	648
	Soybeans	0	0	n/a	281	631	45	0	0	685
	<b>Total</b>	<b>37</b>	<b>49</b>	<b>76</b>	<b>2,300</b>	<b>4,681</b>	<b>49</b>	<b>27</b>	<b>24</b>	<b>4,754</b>
Interior	Wheat	67	41	162	2,328	2,848	82	68	69	2,912
	Corn	204	240	85	10,008	8,840	113	121	119	8,961
	Soybeans	180	201	90	6,683	7,013	95	108	107	7,109
	<b>Total</b>	<b>451</b>	<b>482</b>	<b>94</b>	<b>19,019</b>	<b>18,701</b>	<b>102</b>	<b>108</b>	<b>108</b>	<b>18,982</b>
Great Lakes	Wheat	44	69	63	615	395	156	291	227	395
	Corn	0	0	n/a	56	158	36	0	0	158
	Soybeans	0	0	n/a	200	759	26	0	0	760
	<b>Total</b>	<b>44</b>	<b>69</b>	<b>63</b>	<b>870</b>	<b>1,312</b>	<b>66</b>	<b>79</b>	<b>72</b>	<b>1,312</b>
Atlantic	Wheat	0	0	n/a	106	169	63	n/a	0	169
	Corn	26	0	n/a	159	309	51	267	623	309
	Soybeans	39	67	58	2,097	2,796	75	54	54	2,867
	<b>Total</b>	<b>65</b>	<b>67</b>	<b>97</b>	<b>2,361</b>	<b>3,274</b>	<b>72</b>	<b>59</b>	<b>60</b>	<b>3,345</b>
U.S. total from ports*	Wheat	451	300	150	18,046	20,696	87	103	96	20,786
	Corn	1,063	943	113	38,066	49,816	76	127	113	50,471
	Soybeans	1,126	1,499	75	47,196	55,342	85	61	55	56,882
	<b>Total</b>	<b>2,640</b>	<b>2,742</b>	<b>96</b>	<b>103,309</b>	<b>125,854</b>	<b>82</b>	<b>82</b>	<b>74</b>	<b>128,139</b>

\*Note: Data include revisions from prior weeks; some regional totals may not add exactly because of rounding. YTD = year-to-date; n/a = not applicable or no change.

Source: USDA, Federal Grain Inspection Service.

The United States exports approximately one-quarter of the grain it produces. On average, this includes nearly 45 percent of U.S.-grown wheat, 50 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 55 percent of the U.S. export grain shipments departed through the U.S. Gulf region in 2019.

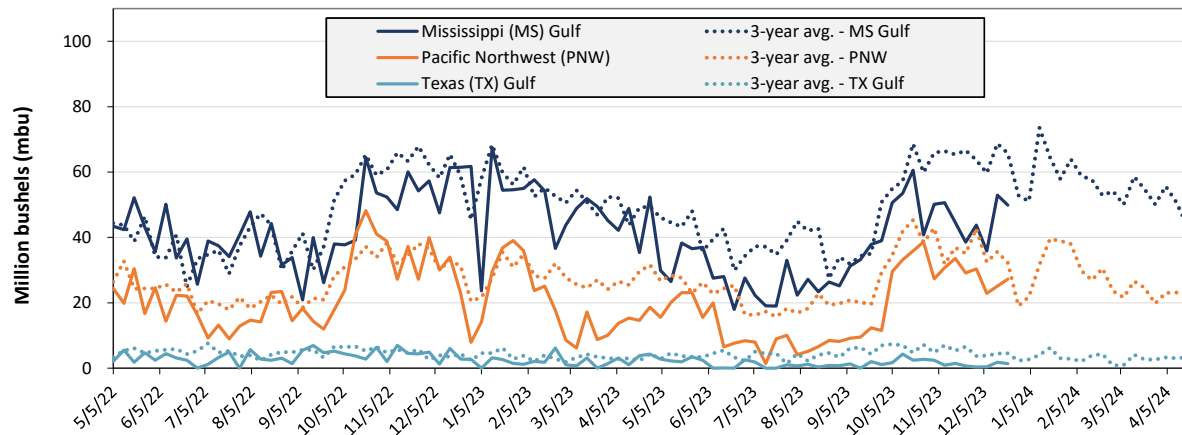
**Figure 14. U.S. grain inspected for export (wheat, corn, and soybeans)**



For the week ending December 21: 99.8 mbu of grain inspected, down 3 percent from the previous week, down 13 percent from the same week last year, and down 21 percent from the 3-year average.

Note: 3-year average consists of 4-week running average.  
Source: USDA, Federal Grain Inspection Service.

**Figure 15. U.S. grain inspections for U.S. Gulf and PNW (wheat, corn, and soybeans)**



**Week ending 12/21/23 inspections (mbu):**

MS Gulf: 49.9

PNW: 27.3

TX Gulf: 1.4

Percent change from	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last week	down 6	down 25	down 6	up 9
Last year (same week)	down 19	down 49	down 20	up 19
3-year average (4-week moving average)	down 23	down 66	down 25	down 24

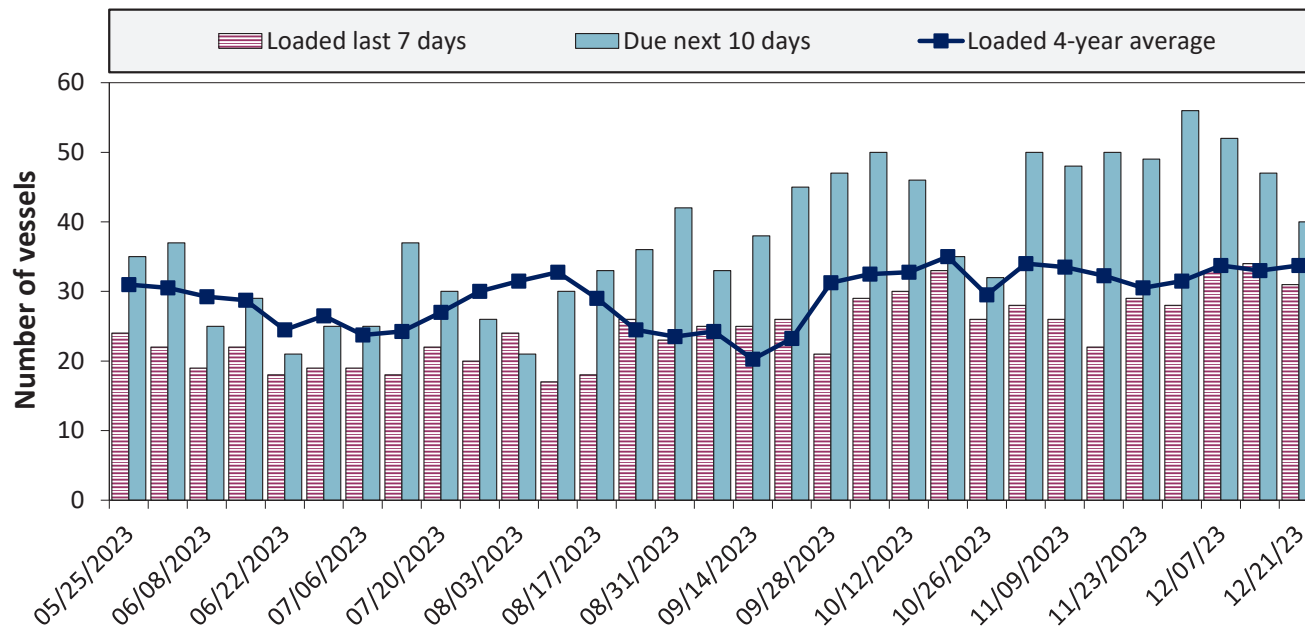
Source: USDA, Federal Grain Inspection Service.

**Table 17. Weekly port region grain ocean vessel activity (number of vessels)**

Date	Gulf			Pacific Northwest
	In port	Loaded 7-days	Due next 10-days	In port
12/21/2023	22	31	40	22
12/14/2023	19	34	47	18
2022 range	(14...61)	(18...39)	(28...62)	(5...23)
2022 average	30	28	44	13

Note: The data are voluntarily submitted and may not be complete.  
 Source: USDA, Agricultural Marketing Service.

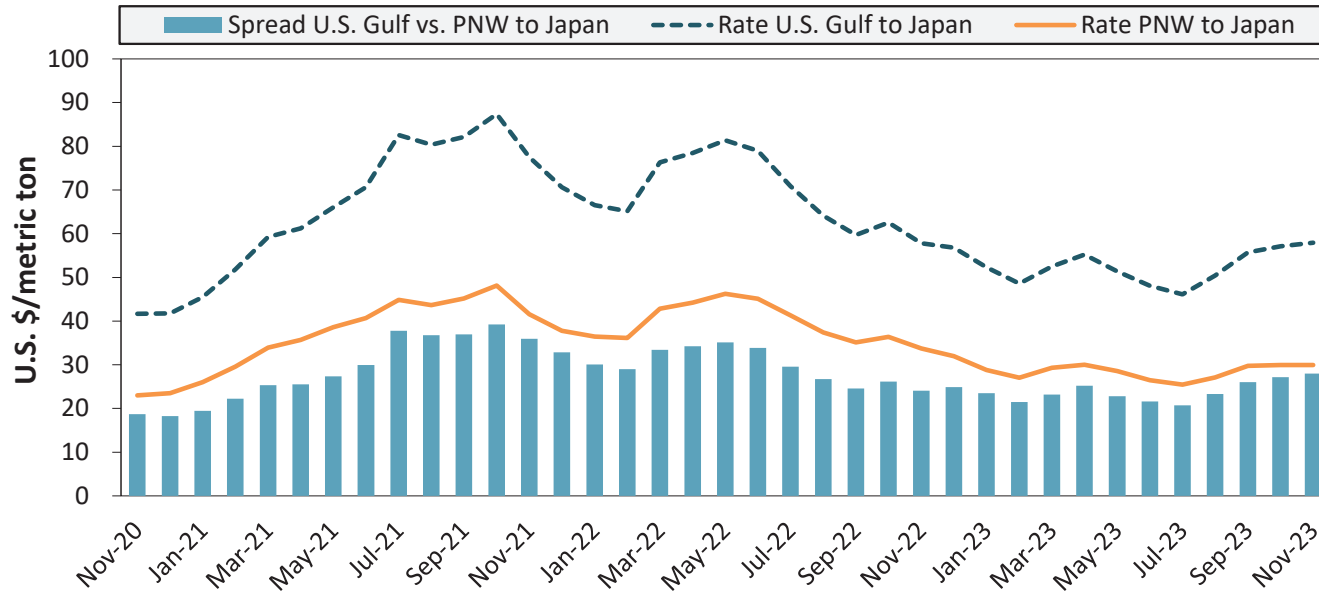
**Figure 16. U.S . Gulf vessel loading activity**



Week ending 12/21/23, number of vessels	Loaded	Due
Change from last year	0.0%	5.3%
Change from 4-year average	-8.1%	-17.9%

Note: U.S. Gulf includes Mississippi, Texas, and east Gulf  
 Source: USDA, Agricultural Marketing Service.

**Figure 17. U.S. Grain vessel rates, U.S. to Japan**



Ocean rates	U.S. Gulf	PNW	Spread
November 2023	\$57.94	\$29.94	\$28.00
Change from November 2022	0.0%	-11.3%	16.3%
Change from 4-year average	3.4%	-3.1%	11.4%

Note: PNW = Pacific Northwest  
Source: O'Neil Commodity Consulting.

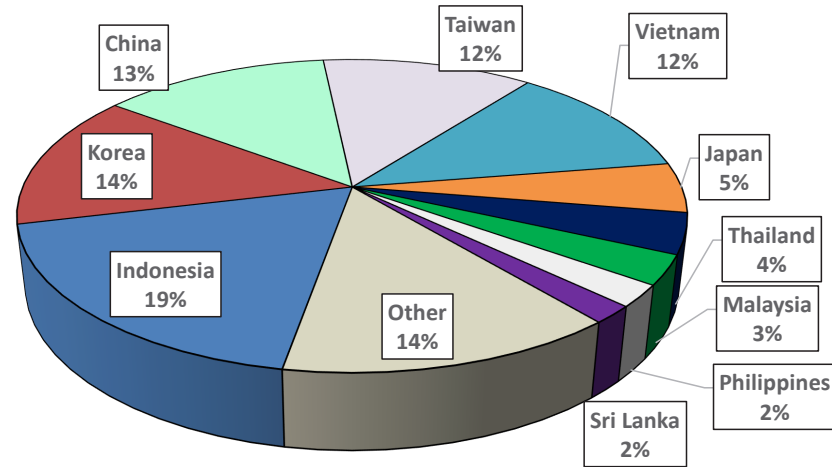
**Table 18. Ocean freight rates for selected shipments, week ending 12/23/2023**

Export region	Import region	Grain types	Entry date	Loading date	Volume loads (metric tons)	Freight rate (US\$/metric ton)
U.S. Gulf	China	Heavy grain	Sep 12, 2023	Oct 1/ Nov 1, 2023	66,000	54.50
U.S. Gulf	China	Heavy grain	Sep 6, 2023	Oct 1/10, 2023	68,000	55.00
U.S. Gulf	Jamaica	Wheat	Nov 2, 2023	Dec 1/10, 2023	9,460	63.50
U.S. Gulf	Colombia	Wheat	Oct 26, 2023	Dec 15/25, 2023	27,500	99.00
U.S. Gulf	Guyana	Wheat	Nov 2, 2023	Dec 1/10, 2023	8,250	84.00
U.S. Gulf	S. Korea	Heavy grain	Oct 10, 2023	Nov 25/Dec 5, 2023	58,000	65.35
U.S. Gulf	S. Korea	Heavy grain	Sep 27, 2023	Oct 25/Nov 5, 2023	57,000	64.85
U.S. Gulf	S. Korea	Heavy grain	Sep 19, 2023	Nov 1/15, 2023	58,000	64.50
U.S. Gulf	S. Korea	Heavy grain	Aug 1, 2023	Oct 1/20, 2023	57,000	58.30
PNW	N. China	Heavy grain	Oct 19, 2023	Nov 16/22, 2023	66,000	28.00
PNW	Thailand	Heavy grain	Oct 20, 2023	Dec 5/15, 2023	66,000	22.50
PNW	Yemen	Wheat	Oct 6, 2023	Nov 5/15, 2023	30,000	74.43
PNW	Yemen	Wheat	Sep 26, 2023	Nov 5/15, 2023	24,740	91.89
WC US	Thailand	Wheat	Nov 9, 2023	Dec 1/10, 2023	60,500	35.25
Brazil	China	Heavy grain	Oct 26, 2023	Dec 1/3, 2023	64,000	39.25

Note: 50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels. Rates shown are per metric ton (1 metric ton = 2,204.62 pounds), free on board (F.O.B), except where otherwise indicated. op = option  
Source: Maritime Research, Inc.

In 2020, containers were used to transport 10 percent of total U.S. waterborne grain exports. Approximately 66 percent of U.S. waterborne grain exports in 2020 went to Asia, of which 14 percent were moved in containers. Approximately 95 percent of U.S. waterborne containerized grain exports were destined for Asia.

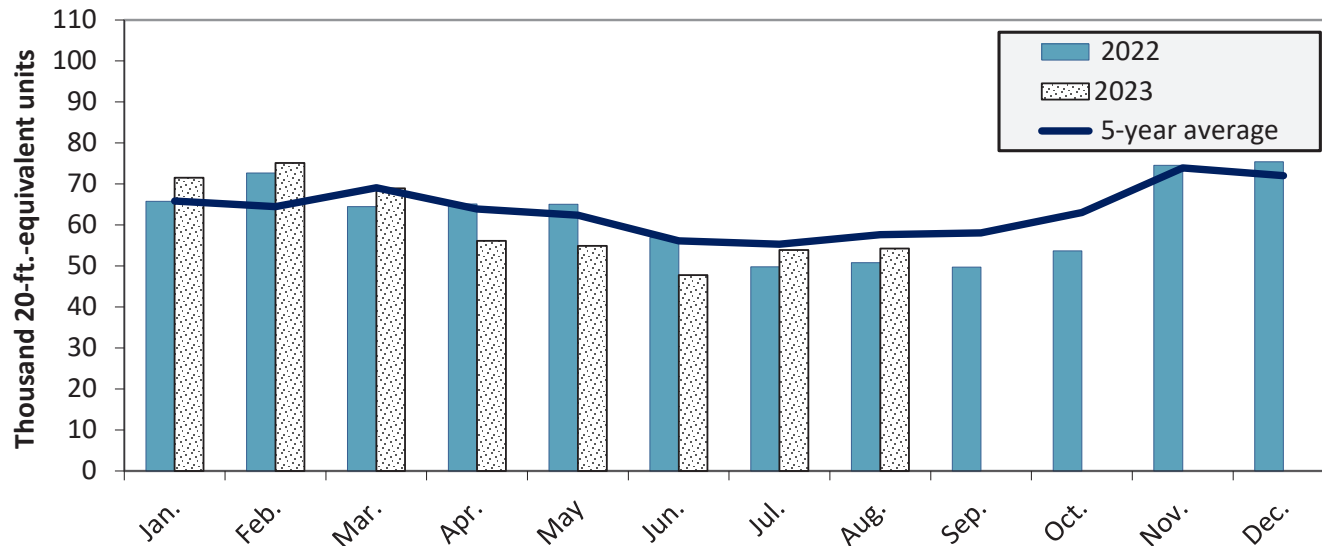
**Figure 18. Top 10 destination markets for U.S. containerized grain exports, Jan-Aug 2023**



Note: The following harmonized tariff codes are used to calculate containerized grains movements: 1001, 100190, 1002, 100200, 1003, 100300, 1004, 100400, 1005, 100590, 1007, 100700, 110100, 1102, 110220, 110290, 1201, 120100, 120190, 120810, 230210, 230310, 230330, 2304, and 230990.

Source: Source: USDA, Agricultural Marketing Service analysis of PIERS data, S&P Global.

**Figure 19. Monthly shipments of U.S. containerized grain exports**



Containerized grain shipments in Aug. 2023 were up 6.9 percent from last year but down 5.8 percent from the 5-year average.

Note: ft. = foot. The following harmonized tariff codes are used to calculate containerized grains movements: 1001, 100190, 1002, 100200, 1003, 100300, 1004, 100400, 1005, 100590, 1007, 100700, 110100, 1102, 110220, 110290, 1201, 120100, 120190, 120810, 230210, 230310, 230330, 2304, and 230990.

Source: Source: USDA, Agricultural Marketing Service analysis of PIERS data, S&P Global.



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