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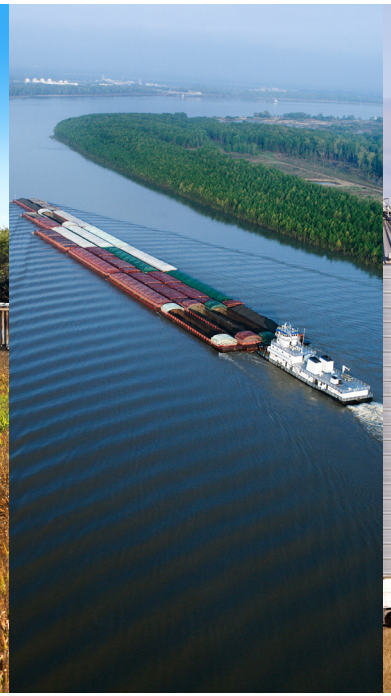
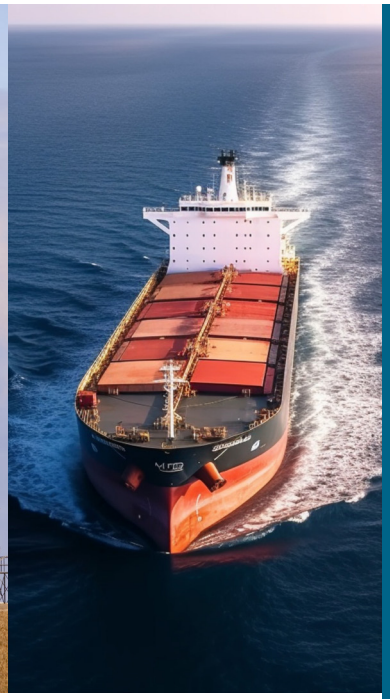
U.S. DEPARTMENT OF AGRICULTURE



Grain Transportation Report

Contents

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Lower Grain Acreage in South May Signal Different Grain Transportation Pattern in MY 2024/25. Released last Thursday, USDA's National Agricultural Statistics Service's 2024 annual ***Prospective Plantings*** report is based on a national survey of farmers about their intended plantings. While too early to forecast yield (and hence volumes), the report provides an early glimpse of potential grain supplies for marketing year 2024/25. Additionally, State-level estimates provide clues about future transportation demand, because grain moves from areas of high supplies to areas of low supplies.

Across the Nation, farmers intend to plant 177 million acres of corn and soybeans this spring. If realized, acreage will be down 1 percent from last year and 1 percent from the 3-year average. Acreage reductions are sharper in several key livestock and poultry-producing Southern States (i.e., Alabama, Arkansas, Georgia, North Carolina, and Texas).

Collectively, these States will plant 9.7 million acres of corn and soybeans—down 7 percent from last year and 4 percent from the 3-year average. If this reduced acreage translates to lower local supplies (subject to existing stocks), livestock producers in these States may place increased demand on domestic grain transportation to import more feed grain from other regions.

Norfolk Southern Lengthens Grain Trains. In a recent article on Norfolk Southern Railway's (NS) website, the firm described changes to its service offerings for grain customers. Most notably, in 2023, NS lengthened its grain unit trains from 85 cars to 105 cars each. Because the longer trains can move 23 percent more grain with each load, NS can run fewer trains, thereby freeing up network capacity.

The 105-car unit train is still shorter than most Western U.S. grain unit trains, which typically have 110 cars (and sometimes even more). Last year, CPKC operated a 142-car grain train—the longest grain train ever loaded and unloaded in the United States (***Grain Transportation Report*, December 7, 2023, second highlight**).

Along with an Eastern Class I competitor—CSX Transportation—NS is essential for connecting surplus feed grain in the eastern Corn Belt (e.g., Ohio, Indiana, and Illinois) to feed grain-deficit areas in the Southeast (i.e., areas with large poultry and livestock populations). These railroads also supply East Coast flour mills with wheat grown in the Great Plains.

FRA Issues New Regulation on Crew Size for Freight Trains. As freight train lengths continue to increase, the Department of Transportation's Federal Railroad Administration (FRA) announced a final rule on train crew size safety requirements on April 2. In general, Class I freight railroads will now be mandated to operate trains with at least two crewmembers—typically an engineer and a conductor.

The final rule includes exceptions allowing for one-person train crews on short line railroads when there are no "significant safety risks to railroad employees, the public, or the environment." Still, the rule requires short line railroads currently operating one-person crews to implement certain safety features/procedures, and any railroad seeking to initiate one-person train crew operations will need to obtain approval from FRA.

The FRA rule comes after a series of state legislative efforts to institute 2-person freight crews. At least 11 states have passed such laws—including several key grain-producing states (i.e., Kansas, Minnesota, Ohio, Washington and Wisconsin).

Two Temporary Channels Open to Port of Baltimore. On March 30, crews began removing the wreckage from the Francis Scott Key Bridge collapse. Crews then worked to establish two temporary alternate routes for "commercially essential vessels." A route on the northeast side of the main channel has a controlling depth of 11 feet, a 264-foot horizontal clearance, and vertical clearance 96 feet. Its first vessel, a fuel barge, transited the temporary alternate channel to Dover Air Force Base on April 1. A second route, opened April 2, has a controlling depth of 14 feet, a 280-foot horizontal clearance, and a vertical clearance of 124 feet. (Baltimore's blocked main channel has a depth of 50 feet.)

The Port of Baltimore was the fifth-largest port for containerized soybean exports in 2023 (***Grain Transportation Report*, March 28, 2024, first highlight**). That year, the Port of Baltimore exported 325,000 metric tons of containerized soybeans—up considerably from the 2018 total of only 28,000 metric tons. Over the past 4 years, the Port of Baltimore has exported 7 percent of its annual containerized soybeans in April.

For the latest updates, see the Key Bridge Response team's homepage.

Export Sales

For the week ending March 21, **unshipped balances** of wheat, corn, and soybeans for marketing year (MY) 2023/24 totaled 26.38 million metric tons (mmt), down 2 percent from last week and up 7 percent from the same time last year.

Net **corn export sales** for MY 2023/24 were 1.21 mmt, up 2 percent from last week. Net **soybean export sales** were 0.26 mmt, down 47 percent from last week. Net weekly **wheat export sales** were 0.34 mmt, up significantly from last week.

Rail

U.S. Class I railroads originated 25,182 **grain carloads** during the week ending March 23. This was a 2-percent increase from the previous week, 12 percent more than last year, and 3 percent fewer than the 3-year average.

Average April **shuttle secondary railcar bids/offers** (per car) were $338 above tariff for the week ending March 28. This was $294 less than last week and $545 more than this week last year. Average non-shuttle secondary railcar bids/offers per car were $563 above tariff. This was $31 less than last week, and $375 more than this week last year.

Barge

For the week ending March 30, **barged grain movements** totaled 658,750 tons. This was 22 percent less than the previous week and 8 percent less than the same period last year.

For the week ending March 30, 447 grain barges **moved down river**—117 fewer than last week. There were 607 grain barges **unloaded** in the New Orleans region, 6 percent fewer than last week.

Ocean

For the week ending March 28, 29 **oceangoing grain vessels** were loaded in the Gulf—3 percent fewer than the same period last year. Within the next 10 days (starting March 29), 45 vessels were expected to be loaded—67 percent more than the same period last year.

As of March 29, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $62.25. This was 1 percent less than the previous week. The rate from the Pacific Northwest to Japan was $33.00 per mt, 2 percent less than the previous week.

Fuel

For the week ending April 1, the U.S. average **diesel price** decreased 3.8 cents from the previous week to $3.996 per gallon, 10.9 cents below the same week last year.

Grain Transportation Update: Mixed Prognosis at the Start of 2024

U.S. grain transportation has experienced mixed news lately, with some notable improvements, but also lingering concerns. On the positive side, barges on the lower Mississippi River System (MRS) face no draft restrictions for the first time since September 2022. Still, ocean and, to some degree, rail transportation face ongoing challenges. Grain-export-bearing ocean vessels from the U.S. Gulf to Asia continue to adopt much longer-than-usual routes. These diversions to avoid low water in the Panama Canal and conflict in the Red Sea have pushed freight rates above average for this time of year. Also, in recent weeks, secondary rail values—at their highest levels since fall 2022—could signal rising demand, service degradation along key grain rail corridors, or both.

According to USDA's latest ***Grain Stocks*** report, total disappearance—the difference in corn, soybeans, and wheat stocks from December 1, 2023, to March 1, 2024—was 5.3 billion bushels (bbu). This total was up 4 percent from the previous year, but down 2 percent from the 3-year average. Disappearance is a proxy for transportation demand because most grain that leaves storage enters the transportation system.

Rail Grain Carloads Continue Trending Low Amid High Secondary Rail Costs

So far in 2024 (through the week ending March 16), rail grain carloads have been down 9 percent from the prior 3-year average, continuing a trend of below-average weekly carloads that began in February of last year (**GTR fig. 3**, in part). Grain carloads originated by Class I railroads in the United States were flat from late January to late February (averaging 25,540 cars per week), before falling in March (averaging 23,860 per week).

In the secondary rail market, where shippers buy and sell guaranteed freight, car values tend to rise during periods of poor rail service (e.g., 2014 and 2022) and in times of high demand. Secondary shuttle values have been positive since October 26, 2023, and they have risen for most of 2024. For the week ending March 7, bids (per car) averaged $1,577 above tariff—the highest near-month value since September 2022. Non-shuttle secondary values are also elevated—reaching $900 per car for the week ending March 14 (highest value since January 2022). Secondary rail values may have peaked, and this week's values are down from recent highs (**GTR fig. 5**). Despite higher secondary rail values, most rail rates (tariffs plus fuel charges) are below this time last year (**GTR table 7** and **GTR fig. 8**).

Rail service metrics for Class I railroads sent mixed signals (**GTR table 4a** and **4b**). On one hand, unfilled grain car orders (for manifest service) have risen in 2024—reaching nearly 10,000 for the week ending March 15. (BNSF Railway has three-quarters of the unfilled grain car orders.) On the other hand, average origin dwell time for grain trains (though rising in recent weeks) is around 28 hours—lower than the 3-year average. Higher secondary rail values likely reflect local service issues and weather challenges. In early January, railroads faced severe winter weather in some parts of the country (**GTR, January 18, 2024, second highlight**), and in recent weeks, the Texas Panhandle has contended with its largest wildfire on record (**GTR, March 7, 2024, first highlight**).

Below-Average Spot Rates, but Barged Grain Volumes Are Slow To Rise Amid Lower Demand

Demand for barged grain movements along the MRS began falling in 2023 and has continued falling in 2024, with persistently weak export demand for grain. This trend may continue until farmers are forced to sell more grain (before the next harvest). On February 24, the U.S. Army Corps of Engineers, Mississippi Valley Division, announced the **end of all draft restrictions** on the lower portion of the MRS, which had begun in September 2022 in response to drought.

Since January 1, weekly barged grain movements have been near average, except for 2 weeks in January when cold weather and ice slowed barged grain movements. Year to date (YTD), 7.1 million tons of grain have moved through the locks—1 percent less than last year and 6 percent less than average (**GTR table 10**). So far this year, the largest weekly amount of

grain moving through the locks was 844,002 tons, for the week ending March 23. This weekly total was also the largest since 2022.

So far in 2024, weekly spot rates have continued below 2023 rates and below the prior-5-year average. At St. Louis, MO, from the week ending January 2 to the week ending March 26, weekly rates dropped 19 percent—from $12.77 per ton to $10.33 (GTR table 9). (From 2019 to 2023, the average rate increase over the first quarter was 3 percent.) At St. Louis, MO, the YTD weekly average spot rate of $12.36 per ton is 30 percent lower than the same period last year and 22 percent lower than the 5-year average. The opening of the upper portion of the MRS on March 17 may tighten barge supplies, as barge operators disperse their barges throughout the MRS. Tight supplies have the potential to increase spot rates.

Dry-Bulk Ocean Freight Rates Inch Up After Lunar New Year Holiday and Amid Logistical Challenges

After tapering from their previous highs on January 4, ocean freight rates for shipping grain edged up again after the week ending March 7. On March 28, the rates to Japan were $62.25 per metric ton (mt) through the U.S. Gulf (up 20 percent from the same period last year) and $33.00 per mt through the Pacific Northwest (PNW) (up 14 percent from last year) (GTR fig. 18). The rise in ocean freight rates from last December to early January partly stemmed from China's increased iron ore imports, before the country's seasonal slump in trade for Chinese Lunar New Year celebrations. After dipping slightly in mid-January, rates were unusually high in February as ton-mile demand rose because of vessels' rerouting through the Cape of Good Hope to avoid the Red Sea conflict (GTR, January 18, 2024).

In January and February, China imported 209.5 million metric tons (mmt) of iron ore, versus 194 mmt during the same 2023 period—an 8.1-percent increase. Similarly, China's coal imports were 74.5 mmt, up 23-percent from a year ago. Freight rates continued to rise in March as soybean export seasons began, especially in Brazil. The continued crisis in the Red Sea, adding to ton-mile demand, put more upward pressure on rates.

Year to date, as of March 28, an average of 30 oceangoing grain vessels per week were loaded in the U.S. Gulf, compared to 28 for the same period in 2023. In PNW, for the same YTD 2024 period, an average of 20 vessels per week were loaded or waiting to load, compared to 11 for the same 2023 period. However, during the last 4 weeks, an average of 31 vessels per week have been loaded in the U.S. Gulf, and an average of 22 vessels per week have been loading or waiting to load in PNW (GTR fig. 17).

Low-water challenges at the Panama Canal persist. However, as of March 8, the Panama Canal Authority has increased the daily transit slots to 27: 7 through the Neopanamax locks and 20 through the Panamax locks. The Panamax locks' normal transit capacity is 34-36 vessels per day and, in the Neopanamax locks, 9-11 vessels per day—depending on vessel mix, transit restrictions, and other factors. The maximum sustainable capacity of the Panama Canal (Panamax and Neopanamax locks) is about 38 vessels per day.

Diesel Prices Projected To Fall In Second Quarter

The U.S. average diesel price fluctuated for much of first quarter 2024 (GTR fig. 14). From the week ending January 1 to the week ending March 25, the diesel price dropped 15.8 cents per gallon. First-quarter 2024 U.S. diesel prices averaged $3.96 per gallon, which was 45 cents below first-quarter 2023's average price.

Looking ahead, the Energy Information Administration's (EIA) March *Short-Term Energy Outlook* expects oil markets to be much tighter in the second quarter. Global oil inventories are projected to fall by 0.9 million barrels per day, as a result of OPEC+ members' extending production cuts through second quarter 2024. Likewise, additional voluntary production cuts from Russia are expected to contribute to the dip in global inventories. EIA projects the second-quarter average diesel price at $3.92 per gallon, down 5 cents from the previous quarter. U.S. diesel prices are projected to average $4.01 per gallon in 2024, down 20 cents from 2023's average price of $4.21 and up 9 cents from EIA's February forecast.

Grain Exports Increase In MY 2023/24

According to USDA's March *World Agricultural Supply and Demand Estimates* (WASDE), total U.S. disappearance (domestic use, plus exports) of the three major grains is expected to total

20.6 bbu in MY 2023/24, up 3 percent from MY 2022/23. From MY 2022/23 to MY 2023/24, exports for these grains are projected to rise 3 percent, because of higher corn exports. Over the same period, domestic use is expected to rise 4 percent, mainly because of higher corn and soybean consumption (table 1).

From MY 2022/23 to MY 2023/24, U.S. corn exports are projected up 26 percent, to 53.3 mmt. Soybean exports are projected down 14 percent (to 46.8 mmt) and wheat exports, down 6 percent (to 19.3 mmt). In MY 2023/24, U.S. grain exporters have faced reduced grain purchases by China and rising domestic use of soybeans for renewable diesel—as well as strong competition from Brazil (for corn and soybeans); the European Union (EU) (for wheat); and Russia (for wheat). For details on factors driving U.S grain exports and its impact on grain transportation for MY 2023/24, see **last week's Grain Transportation Report**.

The increased corn exports and reduced soybean and wheat exports are reflected in the pace of shipments. As of March 21, marketing-year-to-date 2023/24 shipped export sales of corn were 32 percent ahead of the same period for MY 2022/23, mainly because of increased sales to Mexico, Japan, and Columbia (**GTR table 13**). The increased shipments to these countries are reflected in the increased marketing-year-to-date inspections through PNW (Asian shipments) and the Texas Gulf (Latin American shipments), which were up 25 percent and up 41 percent, respectively, from the same time last year (**GTR table 16**).

In contrast, as of March 21, shipped export sales of soybeans (**GTR table 14**) and wheat (**GTR table 15**) were down 19 percent and down 8 percent, respectively, from the same period for MY 2022/23—mostly because of decreased shipments to China (soybeans) and to other Asian and Latin American countries (wheat). As a result, soybean inspections were down 24 percent through the PNW ports and down 10 percent through the Mississippi Gulf ports.

Future grain transportation demand is likely to rise with ample grain stocks. As of March 1, total U.S. grain stocks (i.e., corn, soybeans, and wheat) were 11.3 bbu—up 13 percent from the previous year and up 8 percent from the 3-year average.

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Table 1. Use of major grains (million bushels)

		Corn	Soybeans	Wheat	Total	Y/Y
United States 2023/24 (*projected*)	Exports	2,100	1,720	710	4,530	2.7%
	Domestic use	12,455	2,424	1,144	16,023	3.5%
	Total use	14,555	4,144	1,854	20,553	3.3%
United States 2022/23 (*estimated*)	Exports	1,661	1,992	759	4,412	-18.6%
	Domestic use	12,045	2,313	1,118	15,476	-2.4%
	Total use	13,706	4,305	1,876	19,887	-6.5%
United States 2021/22	Exports	2,472	2,152	796	5,420	
	Domestic use	12,427	2,311	1,117	15,855	
	Total use	14,900	4,463	1,913	21,276	

Source: USDA, *World Agricultural Supply and Demand Estimates* report, March 2024.

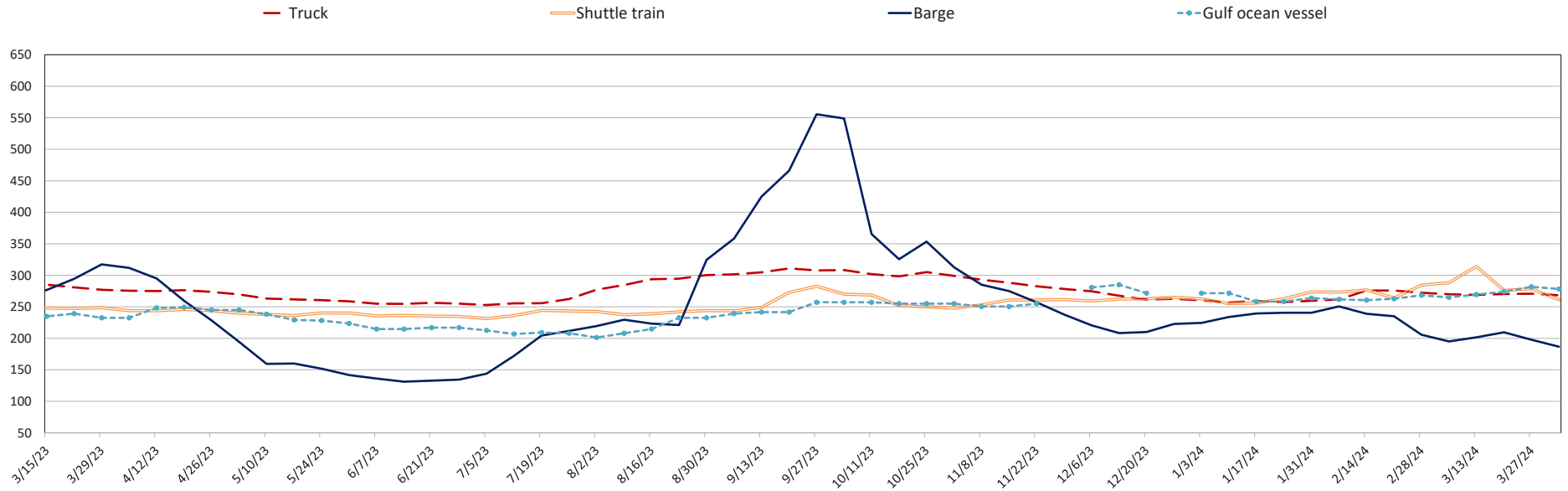
Grains are transported to the domestic and international markets via one or a combination of the following modes: truck, rail, barge and ocean-going vessel. Monitoring the cost of transportation for each mode is vital to the marketing decision making process.

Table 1. Grain transport cost indicators

For the week ending:	Truck	Rail		Barge	Ocean	
		Non-shuttle	Shuttle		Gulf	Pacific
04/03/24	268	346	261	187	278	234
03/27/24	271	348	274	198	282	239
04/05/23	276	328	244	312	233	206

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.
Source: USDA, Agricultural Marketing Service.

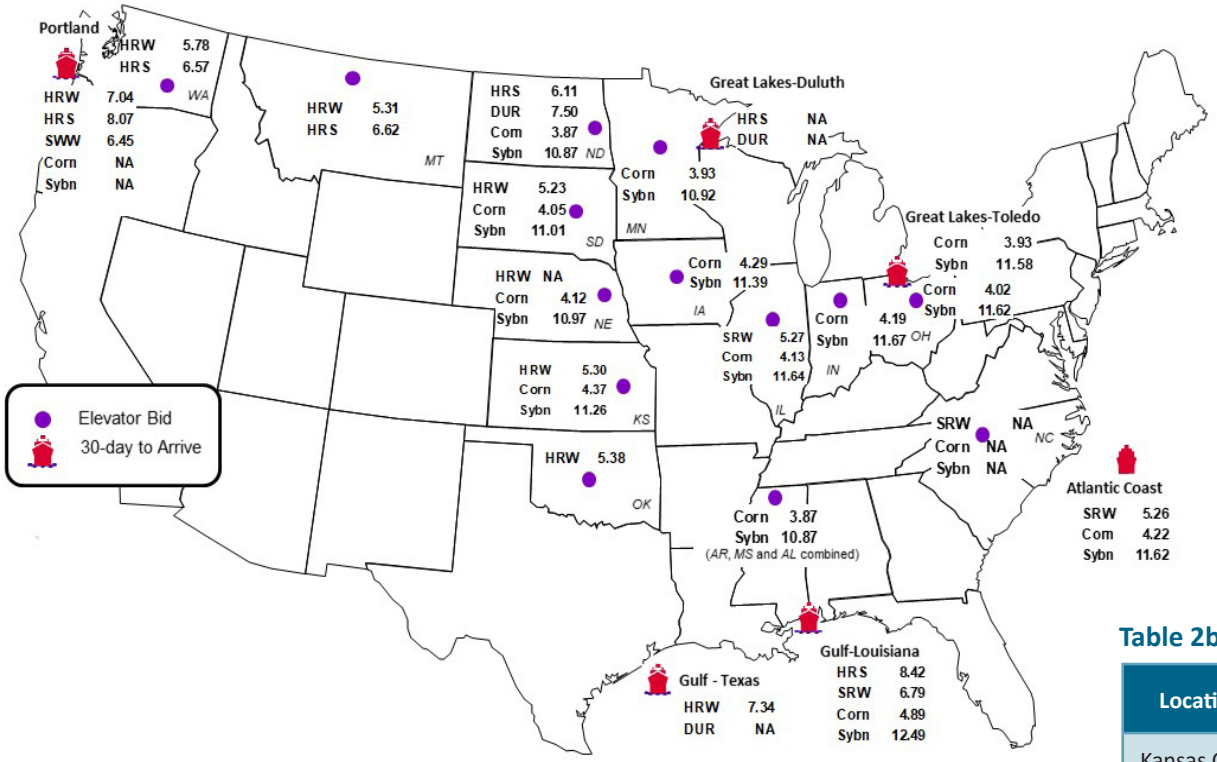
Figure 1. Grain transportation cost indicators as of week ending 4/3/24



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	3/29/2024	3/22/2024
Corn	IL–Gulf	-0.76	-0.78
Corn	NE–Gulf	-0.77	-0.81
Soybean	IA–Gulf	-1.10	-1.10
HRW	KS–Gulf	-2.04	-1.98
HRS	ND–Portland	-1.96	-1.82

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	3/29/2024	Week ago 3/22/2024	Year ago 3/31/2023
Kansas City	Wheat	May	5.672	5.984	8.882
Minneapolis	Wheat	May	6.450	6.610	9.056
Chicago	Wheat	May	5.500	5.620	7.026
Chicago	Corn	May	4.364	4.390	6.654
Chicago	Soybean	May	11.940	12.040	15.144

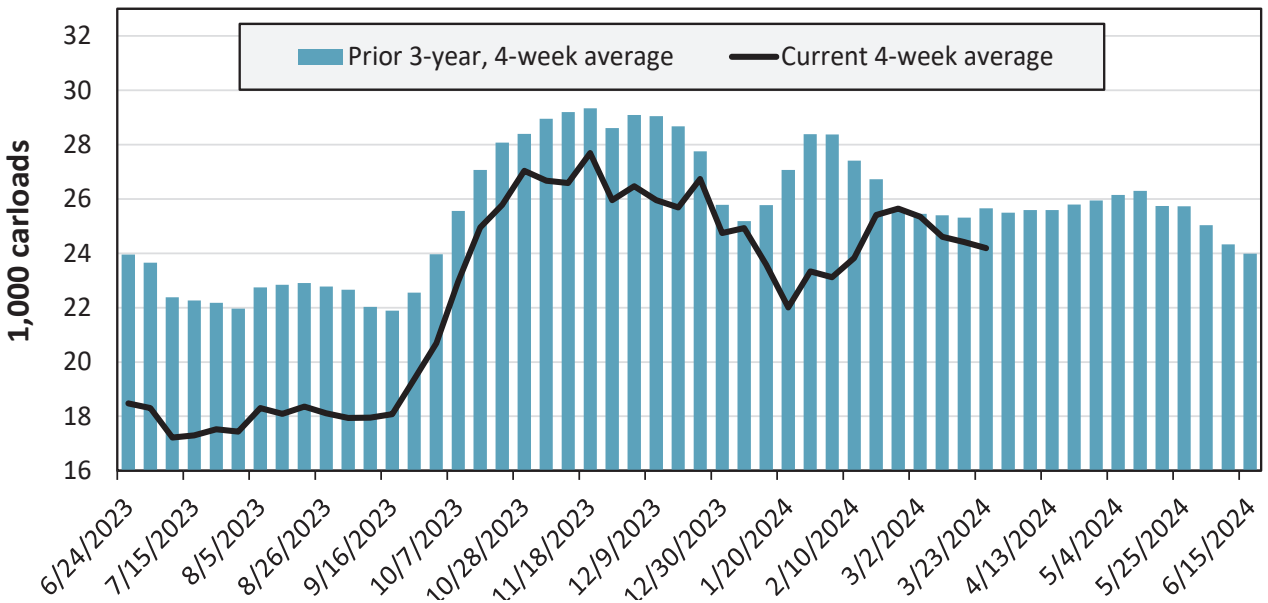
Sources: U.S. Inland: GeoGrain, USDA Weekly Bids, U.S. Export: Corn & Soybean - Export Grain Bids, AMS, USDA Wheat Bids - Weekly Wheat Report, U.S. Wheat Associates, Washington, DC.

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

For the week ending: 3/23/2024	East		West		Central U.S.		U.S. total
	CSXT	NS	BNSF	UP	CPKC	CN	
This week	1,352	2,815	10,248	7,052	2,911	804	25,182
This week last year	2,323	2,372	8,247	5,747	1,879	1,844	22,412
2024 YTD	20,177	32,937	127,001	63,545	35,858	13,164	292,682
2023 YTD	24,764	32,698	120,442	68,404	29,148	20,109	295,565
2024 YTD as % of 2023 YTD	81	101	105	93	123	65	99
Last 4 weeks as % of 2023	78	102	129	96	152	60	110
Last 4 weeks as % of 3-yr. avg.	79	107	97	91	113	60	94
Total 2023	92,754	130,762	499,462	278,079	131,352	66,535	1,198,944

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



Source: Surface Transportation Board.

For the 4 weeks ending March 23, grain carloads were down 1 percent from the previous week, up 10 percent from last year, and down 6 percent from the 3-year average.

Table 4a. Rail service metrics—grain unit train origin dwell times and train speeds

For the week ending: 3/23/2024		East		West		Central U.S.			U.S. Average
		CSX	NS	BNSF	UP	CN	CP	KCS	
Grain unit train origin dwell times (hours)	This week	46.6	37.6	26.6	13.3	3.4	8.4	24.2	22.9
	Average over last 4 weeks	34.4	36.7	33.1	17.0	7.7	15.4	18.7	23.3
	Average of same 4 weeks last year	34.6	36.2	27.4	22.4	14.3	75.8	12.5	31.9
Grain unit train speeds (miles per hour)	This week	23.5	17.2	24.6	22.8	25.4	25.5	27.1	23.7
	Average over last 4 weeks	23.3	17.2	24.3	22.4	25.1	23.3	26.9	23.2
	Average of same 4 weeks last year	24.2	17.2	24.6	22.1	23.8	20.1	26.1	22.6

Note: NS = Norfolk Southern; UP = Union Pacific; CN = Canadian National; CP = Canadian Pacific; KCS = Kansas City Southern. Although CP and KCS have merged to form CPKC, the service metrics are reported for two legacy networks that correspond to the old nomenclature (CP and KCS).
These service metrics are published weekly on the Surface Transportation Board's website and on AgTransport. For more information on each service metric, see 49 CFR § 1250.2.
Source: Surface Transportation Board.

Table 4b. Rail service metrics—unfilled grain car orders and delays

For the week ending: 3/23/2024		East		West		Central U.S.			U.S. Total
		CSX	NS	BNSF	UP	CN	CP	KCS	
Empty grain cars not moved in over 48 hours (number)	This week	37	14	533	82	1	32	9	708
	Average over last 4 weeks	29	9	612	92	5	38	22	807
	Average of same 4 weeks last year	22	9	999	163	9	127	52	1,380
Loaded grain cars not moved in over 48 hours (number)	This week	10	307	925	60	2	51	5	1,360
	Average over last 4 weeks	29	359	1,116	82	3	66	23	1,677
	Average of same 4 weeks last year	21	329	1,432	230	16	325	42	2,395
Grain unit trains held (number)	This week	1	2	23	2	0	2	6	36
	Average over last 4 weeks	1	4	23	1	0	3	6	37
	Average of same 4 weeks last year	1	4	9	16	0	2	4	35
Unfilled grain car orders (number)	This week	0	14	6,683	535	0	938	0	8,170
	Average over last 4 weeks	1	4	6,675	706	0	983	65	8,433
	Average of same 4 weeks last year	5	55	5,604	1,210	0	114	0	6,988

Note: NS = Norfolk Southern; UP = Union Pacific; CN = Canadian National; CP = Canadian Pacific; KCS = Kansas City Southern. Although CP and KCS have merged to form CPKC, the service metrics are reported for two legacy networks that correspond to the old nomenclature (CP and KCS).
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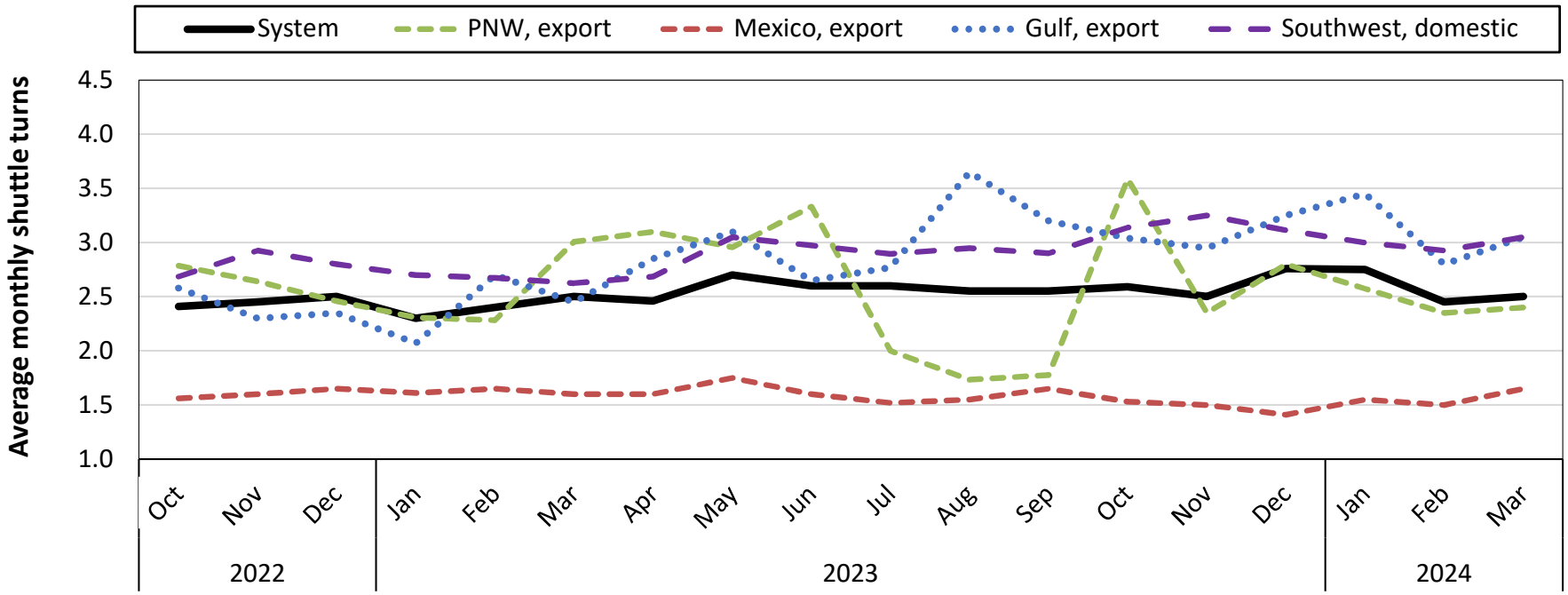
Source: Surface Transportation Board.

Figure 4. Average monthly turns for grain shuttle trains, by region

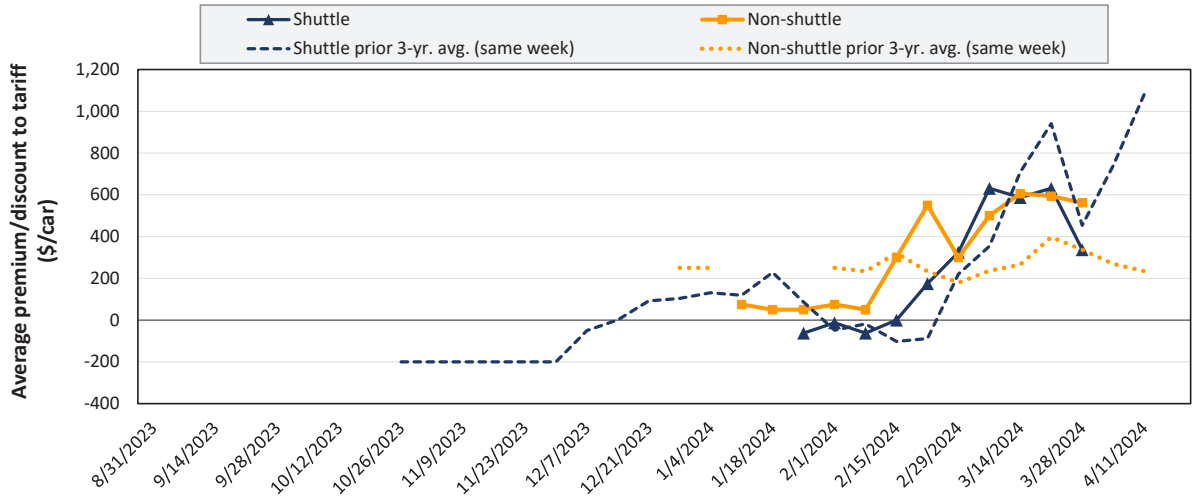


Average monthly system-wide grain shuttle turns reported in the first week of March 2024 were 2.5. By destination region, average monthly grain shuttle turns were 2.4 to PNW, 1.65 to Mexico, 3.05 to the Gulf, and 3.05 to the Southwest.

Note: Data is submitted in the first weekly report of each month, covering the previous month. A "shuttle turn" refers to the number of trips completed per month by a single train. Numbers reflect averages of the three railroads with a shuttle train program: BNSF Railway, Union Pacific Railroad; and CPKC. CPKC only reports values for the Pacific Northwest (PNW). Regions are not standardized and vary across railroads. "Southwest" refers to domestic destinations and includes: "West Texas, Arkansas/Texas, California/Arizona, and California."
Source: Surface Transportation Board.

Railroads periodically auction guaranteed grain car service for an individual trip or a period of time (e.g., one year). This ordering system is referred to as the "primary market." Once grain shippers acquire guaranteed freight on the primary market, they can trade that freight with other shippers through a broker. These transactions are referred to as the "secondary market." Secondary rail values are indicators of rail service quality and demand/supply. The values published herein are market indicators only and do not represent guaranteed prices.

Figure 5. Secondary market bids/offers for railcars to be delivered in April 2024



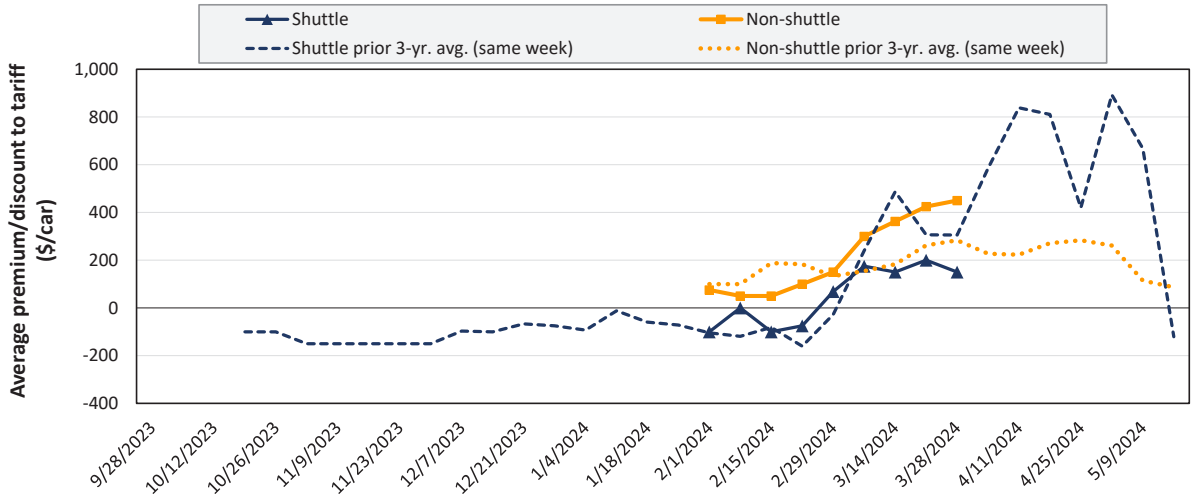
Average non-shuttle bids/offers fell $31 this week, and are $44 below the peak.

Average shuttle bids/offers fell $294 this week and are $294 below the peak.

3/28/2024	BNSF	UP
Non-Shuttle	$675	$450
Shuttle	$475	$200

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 May 2024



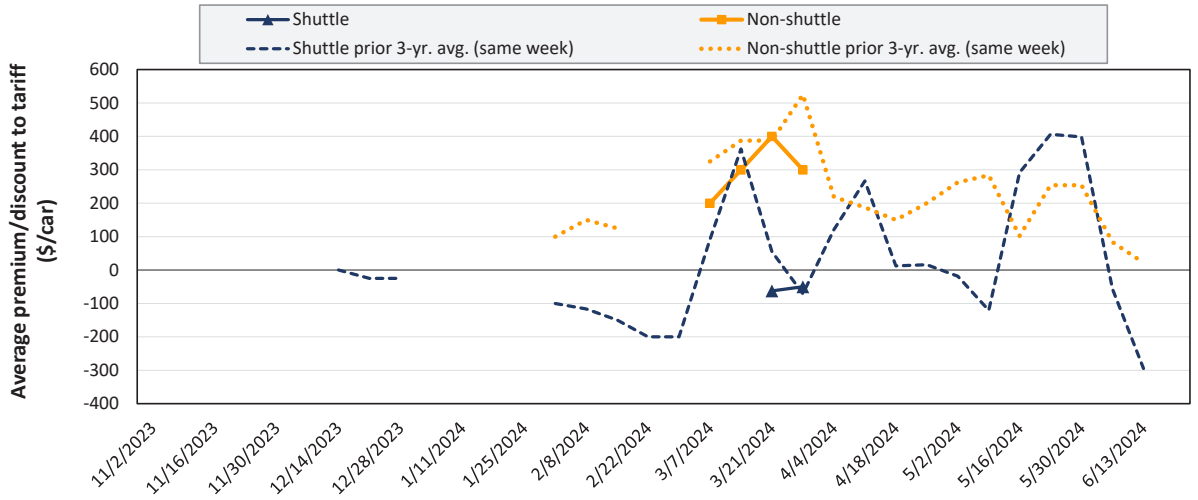
Average non-shuttle bids/offers rose $25 this week, and are at the peak.

Average shuttle bids/offers fell $50 this week and are $50 below the peak.

3/28/2024	BNSF	UP
Non-Shuttle	$500	$400
Shuttle	$100	$200

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 7. Secondary market bids/offers for railcars to be delivered in June 2024



Average non-shuttle bids/offers fell $100 this week, and are $100 below the peak.

Average shuttle bids/offers rose $13 this week and are at the peak.

3/28/2024	BNSF	UP
Non-Shuttle	$400	$200
Shuttle	-$50	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: 3/28/2024		Delivery period					
		Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24
Non-shuttle	BNSF	675	500	400	n/a	n/a	n/a
	Change from last week	75	75	0	n/a	n/a	n/a
	Change from same week 2023	600	400	300	n/a	n/a	n/a
	UP	450	400	200	n/a	n/a	n/a
	Change from last week	-138	-25	n/a	n/a	n/a	n/a
	Change from same week 2023	150	125	0	n/a	n/a	n/a
Shuttle	BNSF	475	100	-50	n/a	-100	n/a
	Change from last week	-388	-100	13	n/a	0	n/a
	Change from same week 2023	606	288	n/a	n/a	100	n/a
	UP	200	200	n/a	n/a	n/a	n/a
	Change from last week	-200	0	n/a	n/a	n/a	n/a
	Change from same week 2023	483	400	n/a	n/a	n/a	n/a
	CPKC	200	0	n/a	n/a	n/a	n/a
	Change from last week	-100	-200	n/a	n/a	n/a	n/a
	Change from same week 2023	300	100	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

April 2024	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	$197	$42.63	$1.16	4
	Grand Forks, ND	Duluth-Superior, MN	$3,508	$60	$35.43	$0.96	-10
	Wichita, KS	Los Angeles, CA	$6,840	$306	$70.96	$1.93	-10
	Wichita, KS	New Orleans, LA	$4,825	$347	$51.36	$1.40	3
	Sioux Falls, SD	Galveston-Houston, TX	$6,611	$251	$68.14	$1.85	-10
	Colby, KS	Galveston-Houston, TX	$5,075	$380	$54.17	$1.47	3
	Amarillo, TX	Los Angeles, CA	$5,121	$529	$56.11	$1.53	-2
Corn	Champaign-Urbana, IL	New Orleans, LA	$4,000	$392	$43.62	$1.11	-2
	Toledo, OH	Raleigh, NC	$8,877	$0	$88.15	$2.24	4
	Des Moines, IA	Davenport, IA	$2,830	$83	$28.93	$0.73	6
	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	$244	$46.37	$1.18	3
	Des Moines, IA	Los Angeles, CA	$6,305	$711	$69.67	$1.77	0
Soybeans	Minneapolis, MN	New Orleans, LA	$3,156	$580	$37.10	$1.01	-18
	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	$392	$53.95	$1.47	2

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

April 2024	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	$4,043	$176	$41.90	$1.14	-9
	Wichita, KS	Galveston-Houston, TX	$4,111	$137	$42.18	$1.15	-6
	Chicago, IL	Albany, NY	$7,413	$0	$73.61	$2.00	5
	Grand Forks, ND	Portland, OR	$5,701	$304	$59.63	$1.62	-8
	Grand Forks, ND	Galveston-Houston, TX	$5,146	$312	$54.20	$1.48	-7
	Colby, KS	Portland, OR	$5,923	$624	$65.01	$1.77	-2
Corn	Minneapolis, MN	Portland, OR	$5,660	$370	$59.88	$1.52	-3
	Sioux Falls, SD	Tacoma, WA	$5,620	$339	$59.18	$1.50	-3
	Champaign-Urbana, IL	New Orleans, LA	$4,345	$392	$47.04	$1.20	2
	Lincoln, NE	Galveston-Houston, TX	$4,560	$198	$47.25	$1.20	2
	Des Moines, IA	Amarillo, TX	$4,845	$307	$51.16	$1.30	2
	Minneapolis, MN	Tacoma, WA	$5,660	$367	$59.85	$1.52	-3
	Council Bluffs, IA	Stockton, CA	$5,780	$380	$61.17	$1.55	0
Soybeans	Sioux Falls, SD	Tacoma, WA	$6,335	$339	$66.28	$1.80	-3
	Minneapolis, MN	Portland, OR	$6,385	$370	$67.08	$1.83	-3
	Fargo, ND	Tacoma, WA	$6,235	$301	$64.91	$1.77	-2
	Council Bluffs, IA	New Orleans, LA	$5,270	$452	$56.83	$1.55	1
	Toledo, OH	Huntsville, AL	$5,509	$0	$54.71	$1.49	4
	Grand Island, NE	Portland, OR	$5,905	$638	$64.98	$1.77	1

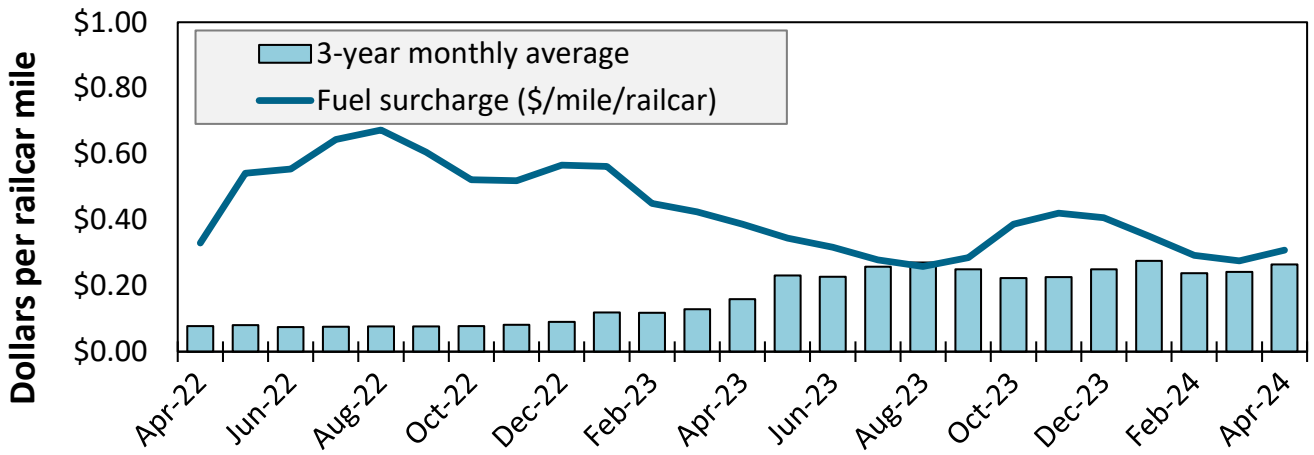
Note: A unit train refers to shipments of at least 25 cars. Shuttle train rates are generally available for qualified shipments of 75-120 cars that meet railroad efficiency requirements. The table assumes 111 short tons (100.7 metric tons) per car, 56 pounds per bushel of corn, and 60 pounds per bushel 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	Torreon, 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	Torreon, 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	Torreon, 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.

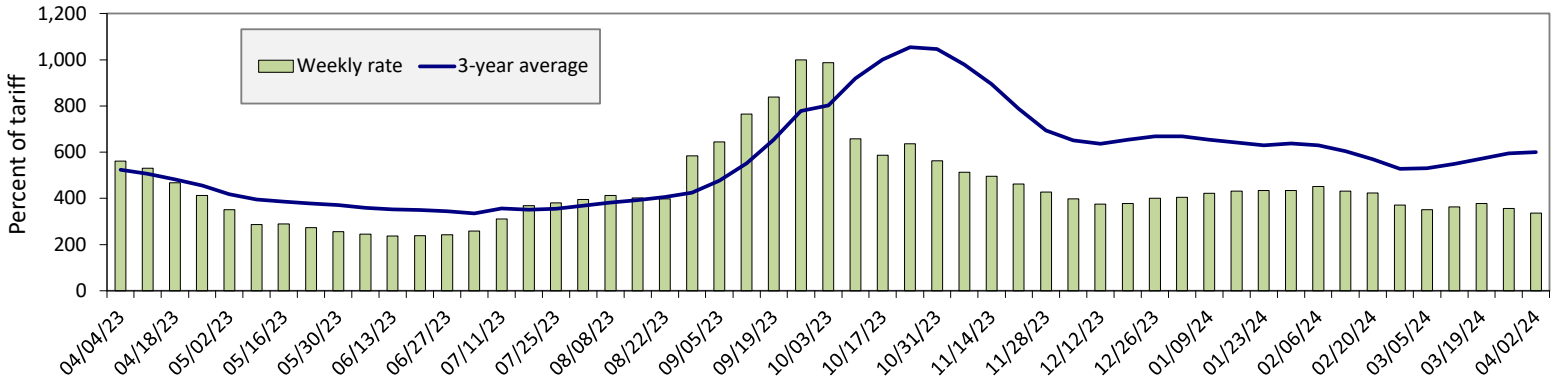
Figure 8. Railroad fuel surcharges, North American weighted average



April 2024: $0.31/mile, up 3 cents from last month's surcharge of $0.28/mile; down 8 cents from the April 2023 surcharge of $0.39/mile; and up 5 cents from the April prior 3-year average of $0.26/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 9. Illinois River barge freight rate



For the week ending April 2: 6 percent lower than the previous week; 40 percent lower than last year; and 44 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	4/2/2024	379	347	336	241	294	294	228
	3/26/2024	394	369	356	259	311	311	234
$/ton	4/2/2024	23.46	18.46	15.59	9.62	13.79	11.88	7.16
	3/26/2024	24.39	19.63	16.52	10.33	14.59	12.56	7.35

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	-35	-39	-40	-40	-33	-33	-31
	3-year avg.	-42	-44	-44	-50	-45	-45	-45
Rate	May	363	338	331	236	282	282	224
	July	359	335	328	242	276	276	226

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; n/a = data not available.
Source: USDA, Agricultural Marketing Service.

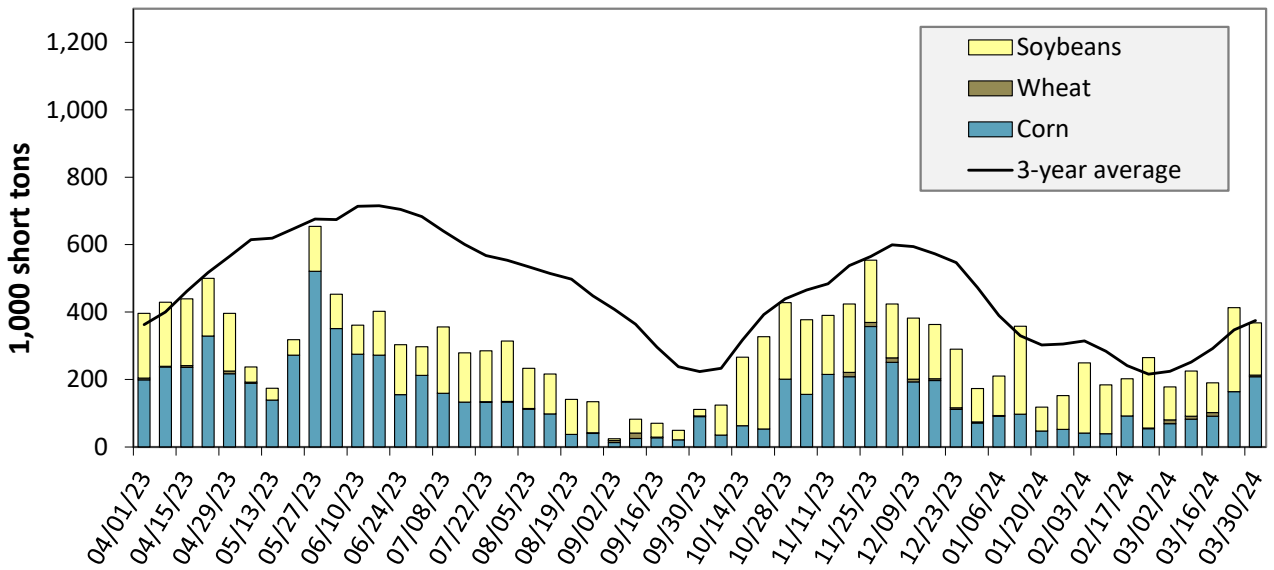
Figure 10. Benchmark tariff rates

Calculating barge rate per ton:
(Rate* 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 11. Barge movements on the Mississippi River (Locks 27-Granite City, IL)



For the week ending March 30: 7 percent lower than last year and 2 percent lower than the 3-year average.

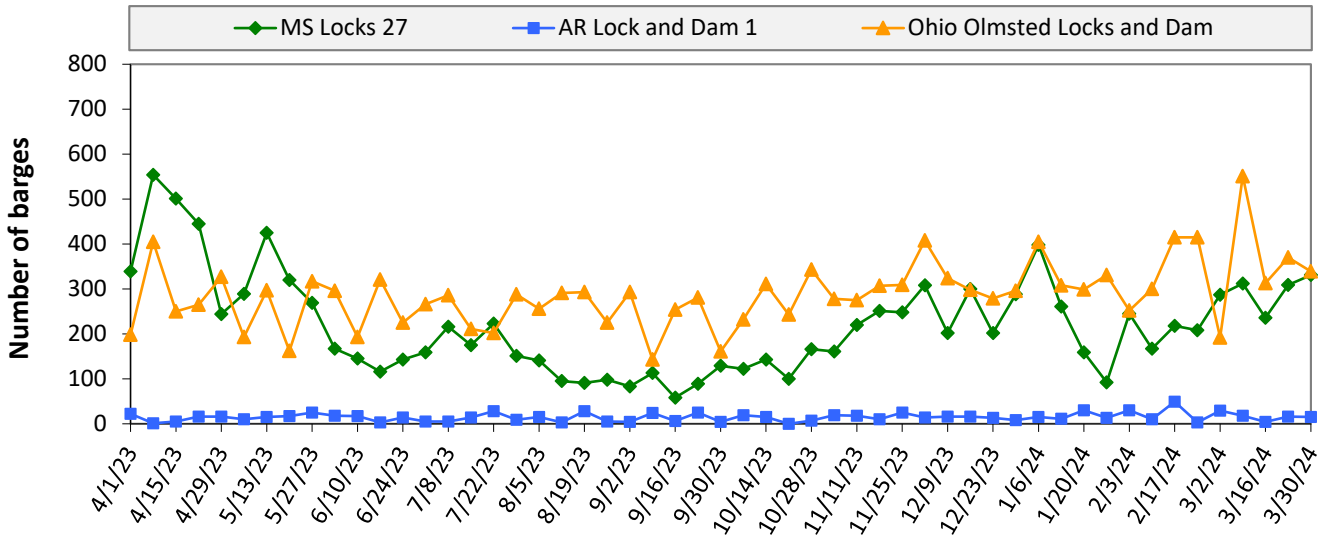
Note: The 3-year average is a 4-week moving average. The U.S. Army Corps of Engineers has recently migrated its lock and vessel database and has noted the latest data may be revised in coming weeks.
Source: U.S. Army Corps of Engineers.

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

For the week ending 03/30/2024	Corn	Wheat	Soybeans	Other	Total
Mississippi River (Rock Island, IL (L15))	13	0	49	0	62
Mississippi River (Winfield, MO (L25))	98	3	81	0	182
Mississippi River (Alton, IL (L26))	220	3	165	0	388
Mississippi River (Granite City, IL (L27))	208	5	155	0	367
Illinois River (La Grange)	75	0	83	0	158
Ohio River (Olmsted)	166	15	65	0	245
Arkansas River (L1)	0	39	7	0	46
Weekly total - 2024	374	59	226	0	659
Weekly total - 2023	401	27	259	27	715
2024 YTD	3,035	429	3,583	66	7,113
2023 YTD	3,022	313	3,763	118	7,216
2024 as % of 2023 YTD	100	137	95	56	99
Last 4 weeks as % of 2023	101	260	105	43	107
Total 2023	12,857	1,346	11,824	267	26,294

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.

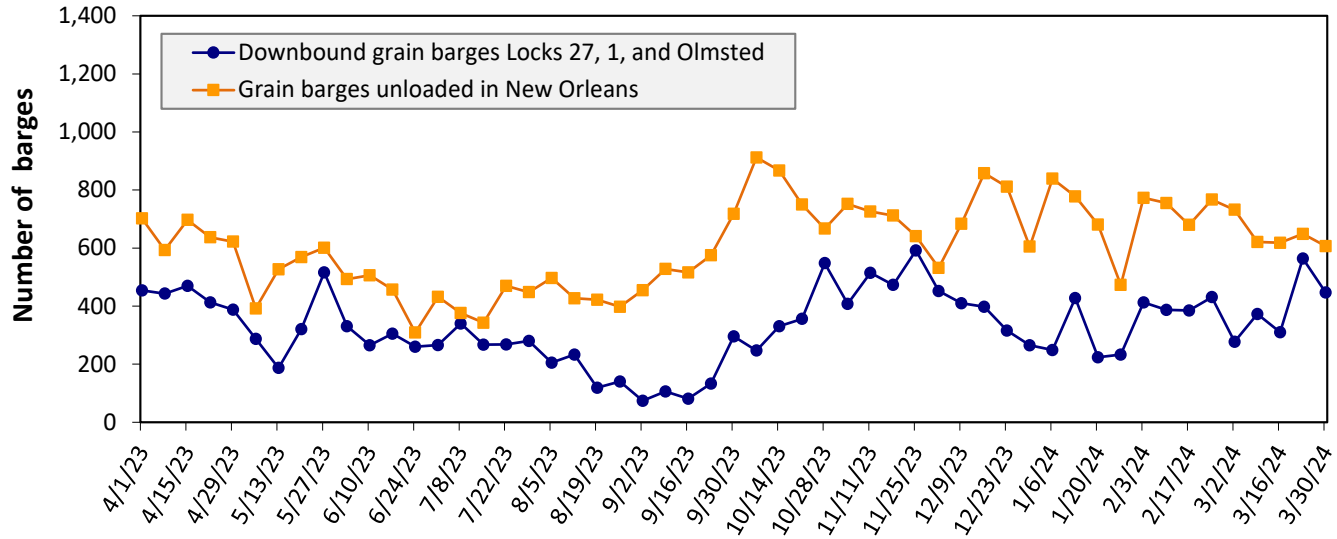
Figure 12. Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



For the week ending March 30: 685 barges transited the locks, 10 barges fewer than the previous week, and 2 percent higher 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 13. Grain barges for export in New Orleans region



For the week ending March 30: 447 barges moved down river, 117 fewer than the previous week; 607 grain barges unloaded in the New Orleans Region, 6 percent fewer than the previous week.

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.

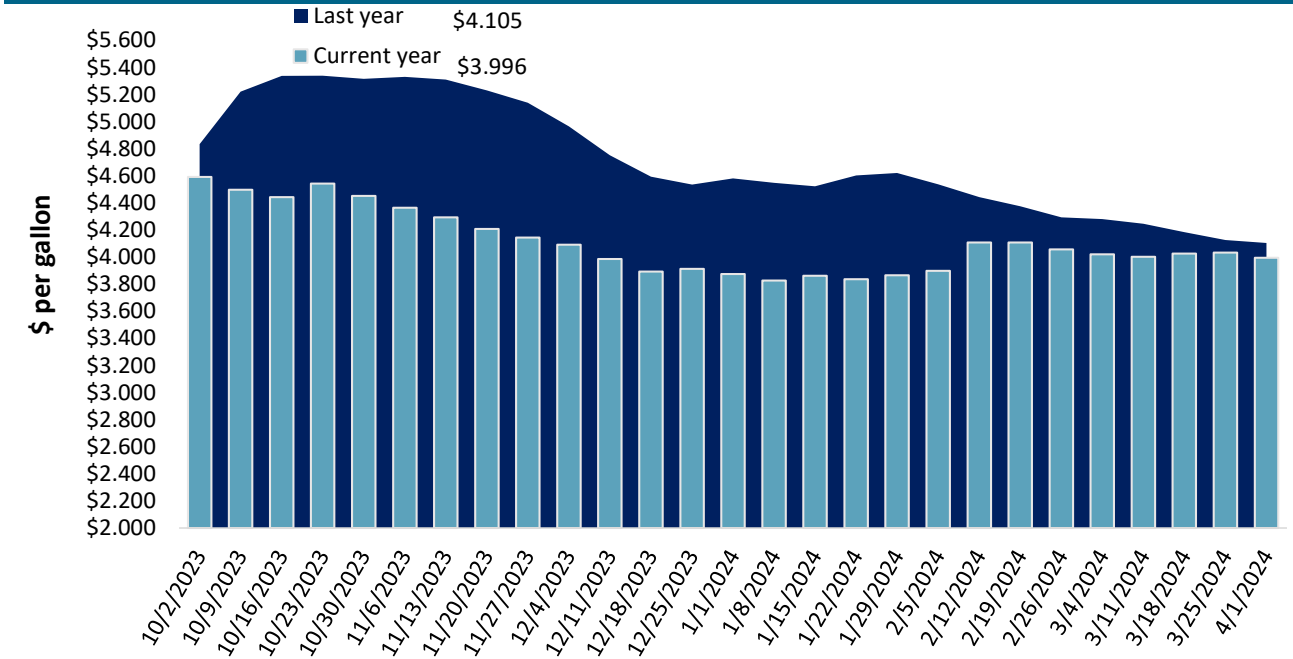
The weekly diesel price provides a proxy for trends in U.S. truck rates as diesel fuel is a significant expense for truck grain movements.

Table 11. Retail on-highway diesel prices, week ending 4/01/2024 (U.S. $/gallon)

Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	4.083	-0.042	-0.143
	New England	4.305	-0.016	-0.275
	Central Atlantic	4.271	-0.023	-0.256
	Lower Atlantic	3.990	-0.052	-0.088
II	Midwest	3.949	-0.037	-0.003
III	Gulf Coast	3.670	-0.047	-0.217
IV	Rocky Mountain	3.949	-0.037	-0.201
V	West Coast	4.651	-0.015	-0.073
	West Coast less California	4.147	-0.026	-0.295
	California	5.221	-0.003	0.174
Total	United States	3.996	-0.038	-0.109

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 14. Weekly diesel fuel prices, U.S. average



For the week ending April 1, the U.S. average diesel fuel decreased 3.8 cents from the previous week to $3.996 per gallon, 10.9 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 3/21/2024	1,055	1,195	1,467	924	71	4,712	17,525	4,143	26,380
	This week year ago	619	486	866	690	77	2,737	16,722	5,253	24,713
	Last 4 wks. as % of same period 2022/23	160	320	182	130	115	187	106	92	112
Current shipped (cumulative) exports sales	2023/24 YTD	2,559	3,102	4,889	3,059	411	14,020	25,378	36,212	75,610
	2022/23 YTD	4,279	2,304	4,565	3,771	291	15,210	19,243	44,508	78,960
	YTD 2023/24 as % of 2022/23	60	135	107	81	141	92	132	81	96
	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 3/21/2024	Total commitments (1,000 mt)		% change current MY	Exports 3-year average
	YTD MY 2023/24	YTD MY 2022/23	from last MY	2020-22 (1,000 mt)
Mexico	18,252	13,408	36	15,227
China	1,923	7,515	-74	12,616
Japan	7,305	4,775	53	10,273
Colombia	4,290	1,651	160	4,398
Korea	1,423	766	86	2,563
Top 5 importers	**33,192**	**28,115**	**18**	**45,077**
Total U.S. corn export sales	**42,903**	**35,965**	**19**	**56,665**
% of YTD current month's export projection	80%	85%	-	-
Change from prior week	1,207	1,037	-	-
Top 5 importers' share of U.S. corn export sales	**77%**	**78%**	**-**	**80%**
USDA forecast March 2024	**53,343**	**42,192**	**26**	**-**
Corn use for ethanol USDA forecast, March 2024	**136,525**	**131,471**	**4**	**-**

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; "-" = not applicable.
Source: USDA, Foreign Agricultural Service.

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

For the week ending 3/21/2024	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	23,301	30,830	-24	32,321
Mexico	4,142	4,200	-1	4,912
Egypt	482	1,072	-55	2,670
Japan	1,740	1,830	-5	2,259
Indonesia	1,399	1,160	21	1,973
Top 5 importers	**31,065**	**39,092**	**-21**	**44,133**
Total U.S. soybean export sales	**40,355**	**49,761**	**-19**	**56,656**
% of YTD current month's export projection	86%	92%	-	-
Change from prior week	264	348	-	-
Top 5 importers' share of U.S. soybean export sales	**77%**	**79%**	**-**	**78%**
USDA forecast, March 2024	**46,811**	**54,213**	**-14**	**-**

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; "-" = not applicable.
Source: USDA, Foreign Agricultural Service.

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

For the week ending 3/21/2024	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	3,183	3,143	1	3,397
Philippines	2,759	2,203	25	2,615
Japan	1,984	2,095	-5	2,281
China	2,088	1,029	103	1,740
Korea	1,405	1,259	12	1,426
Nigeria	243	752	-68	1,276
Taiwan	1,096	754	45	944
Thailand	455	624	-27	643
Colombia	294	514	-43	537
Indonesia	432	345	25	469
Top 10 importers	**13,938**	**12,720**	**10**	**15,327**
Total U.S. wheat export sales	**18,732**	**17,947**	**4**	**20,411**
% of YTD current month's export projection	97%	87%	-	-
Change from prior week	340	84	-	-
Top 10 importers' share of U.S. wheat export sales	**74%**	**71%**	**-**	**75%**
USDA forecast, March 2024	**19,323**	**20,657**	**-6**	**-**

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; "-" = not applicable.
Source: USDA, Foreign Agricultural Service.

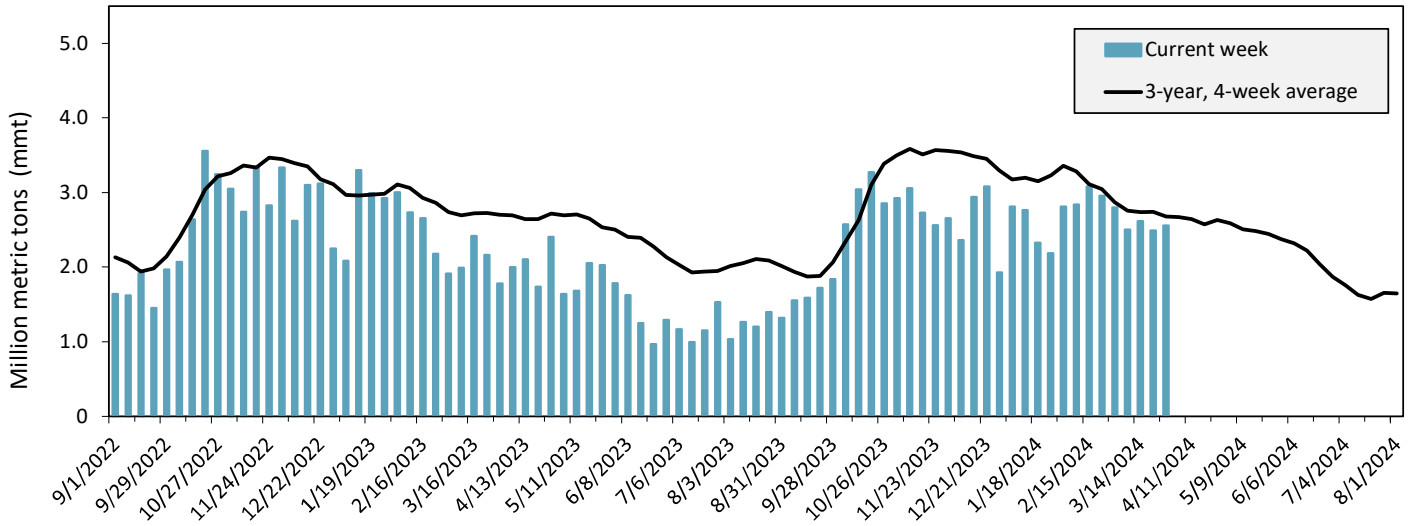
Table 16. Grain inspections for export by U.S. port region (1,000 metric tons)

Port regions	Commodity	For the week ending 03/28/2024	Previous week*	Current week as % of previous	2024 YTD*	2023 YTD*	2024 YTD as % of 2023 YTD	Last 4-weeks as % of:		2023 total*
								Last year	Prior 3-yr. avg.	
Pacific Northwest	Corn	564	499	113	4,088	827	494	585	158	5,267
	Soybeans	0	43	0	2,379	3,133	76	n/a	136	10,286
	Wheat	253	182	139	2,382	2,965	80	111	87	9,814
	All Grain	**885**	**723**	**122**	**9,443**	**7,066**	**134**	**270**	**120**	**25,913**
Mississippi Gulf	Corn	567	507	112	5,989	5,887	102	78	55	23,630
	Soybeans	304	542	56	8,563	9,682	88	98	138	26,878
	Wheat	162	190	86	1,442	669	215	227	266	3,335
	All Grain	**1,034**	**1,240**	**83**	**16,049**	**16,239**	**99**	**93**	**83**	**53,843**
Texas Gulf	Corn	10	10	101	122	70	175	267	119	397
	Soybeans	0	0	n/a	0	49	0	n/a	n/a	267
	Wheat	34	34	98	371	529	70	90	61	1,593
	All Grain	**179**	**44**	**406**	**1,693**	**1,174**	**144**	**117**	**66**	**5,971**
Interior	Corn	288	239	120	3,097	2,413	128	130	130	10,474
	Soybeans	109	196	56	2,076	1,948	107	105	101	6,508
	Wheat	45	27	166	675	615	110	169	132	2,281
	All Grain	**449**	**479**	**94**	**5,933**	**5,003**	**119**	**127**	**121**	**19,467**
Great Lakes	Corn	0	0	n/a	0	0	n/a	n/a	n/a	57
	Soybeans	0	0	n/a	0	2	0	n/a	n/a	192
	Wheat	0	0	n/a	30	60	50	50	113	581
	All Grain	**0**	**0**	**n/a**	**30**	**62**	**48**	**50**	**113**	**831**
Atlantic	Corn	3	0	n/a	107	44	240	151	275	166
	Soybeans	1	4	23	400	1,007	40	7	8	2,058
	Wheat	6	0	n/a	10	35	30	1020	46	101
	All Grain	**9**	**4**	**223**	**517**	**1,086**	**48**	**19**	**21**	**2,325**
All Regions	Corn	1,432	1,255	114	13,403	9,247	145	132	86	40,004
	Soybeans	414	785	53	13,471	15,926	85	103	116	46,459
	Wheat	499	433	115	4,910	4,873	101	139	116	17,738
	All Grain	**2,556**	**2,490**	**103**	**33,717**	**30,739**	**110**	**123**	**95**	**108,664**

*Note: Data includes revisions from prior weeks; "All grain" includes corn, soybeans, wheat, sorghum, oats, barley, rye, sunflower, flaxseed, and mixed grains; "All regions" includes listed regions and other minor regions not listed; YTD= year-to-date; n/a = not available 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.

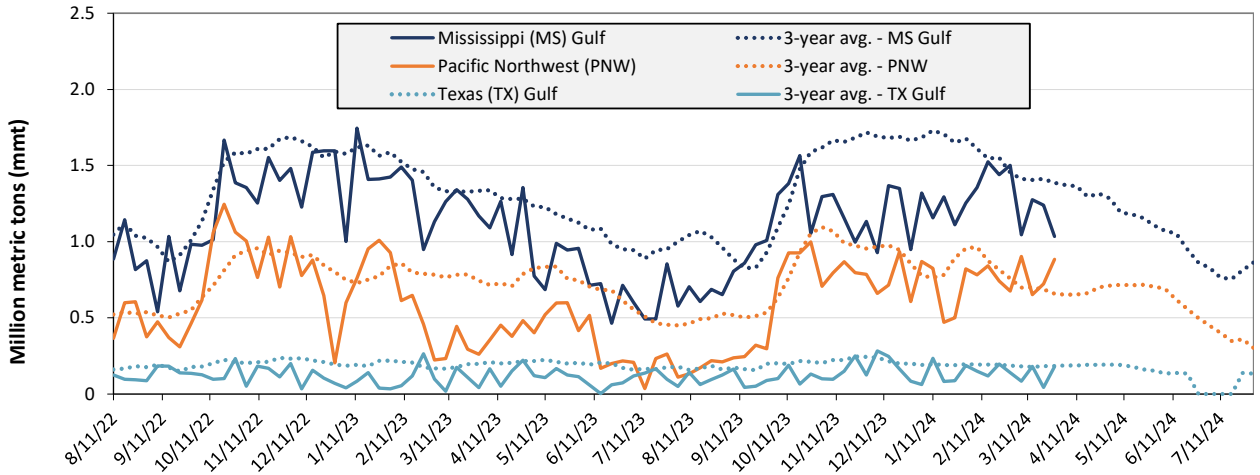
Figure 15. U.S. grain inspected for export (wheat, corn, and soybeans)



For the week ending Mar. 28: 2.6 mmt of grain inspected, up 3 percent from the previous week, up 41 percent from the same week last year, and down 4 percent from the 3-year, 4-week average.

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

Figure 16. U.S. grain inspections for U.S. Gulf and PNW (wheat, corn, and soybeans)



Week ending 03/28/24 inspections (mmt):
MS Gulf: 1.03
PNW: 0.88
TX Gulf: 0.18

Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last week	down 17	up 306	down 5	up 22
Last year (same 7 days)	down 10	up 82	down 3	up 258
3-year average (4-week moving average)	down 25	down 2	down 23	up 34

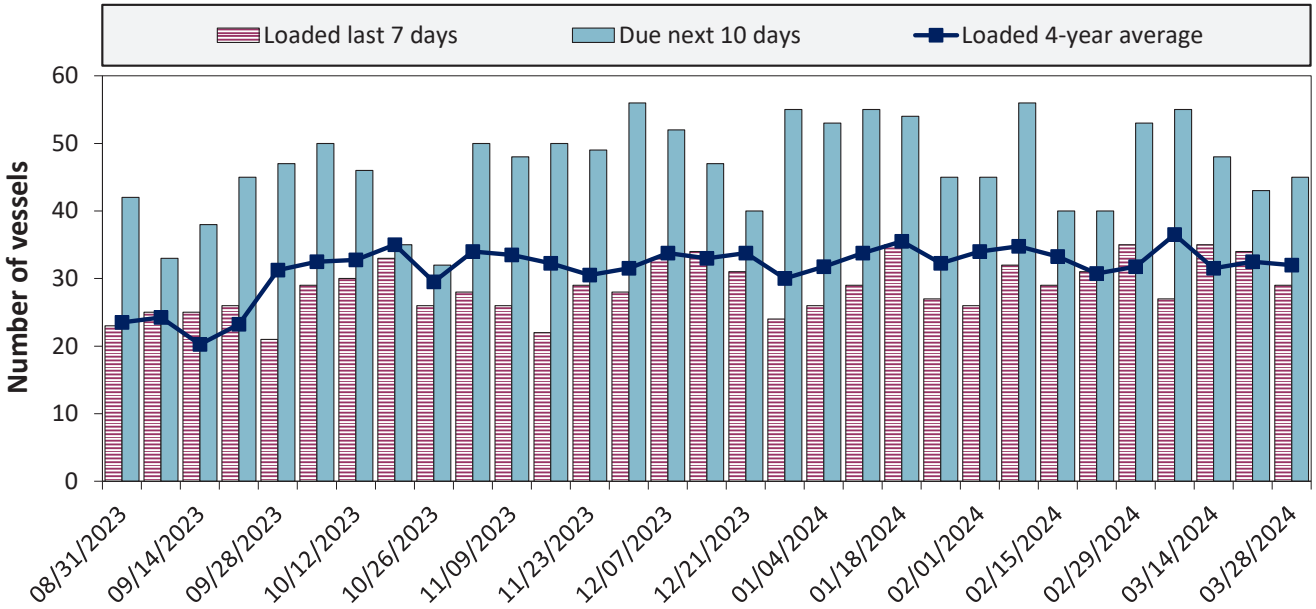
Source: USDA, Federal Grain Inspection Service.

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
3/28/2024	26	29	45	25
3/21/2024	28	34	43	25
2023 range	(8…38)	(17…34)	(21…56)	(1…24)
2023 average	22	26	39	10

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

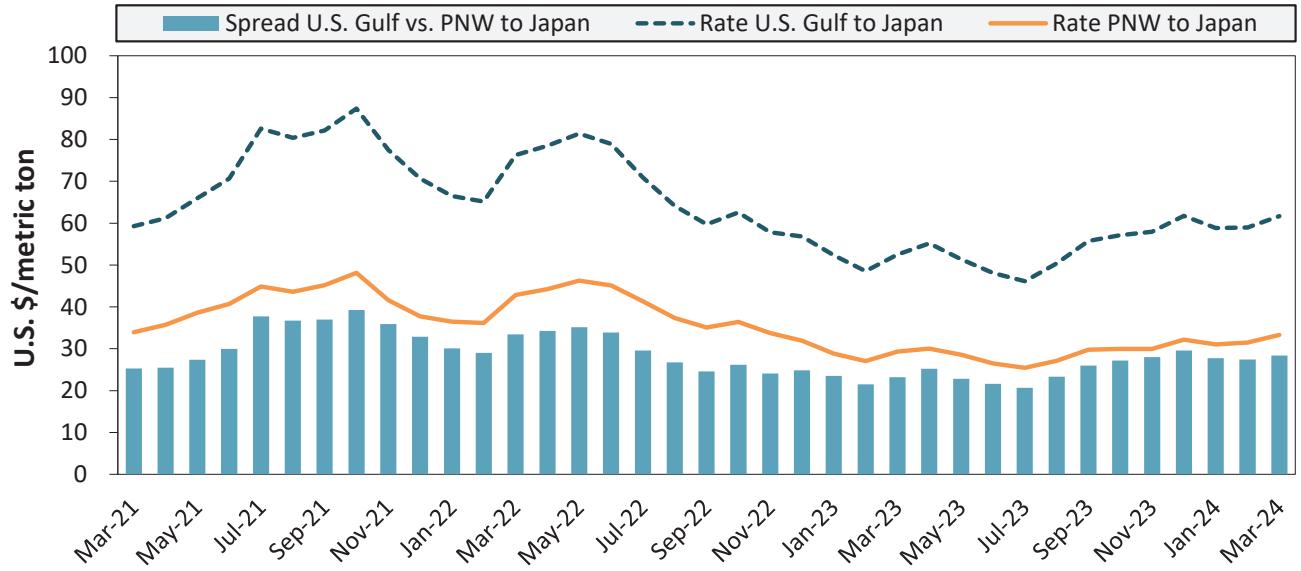
Figure 17. U.S . Gulf vessel loading activity



Week ending 3/28/24, number of vessels	Loaded	Due
Change from last year	-3%	67%
Change from 4-year average	-9%	10%

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

Figure 18. U.S. Grain vessel rates, U.S. to Japan



Ocean rates	U.S. Gulf	PNW	Spread
March 2024	$62	$33	$28
Change from March 2023	18%	14%	22%
Change from 4-year average	7%	4%	12%

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

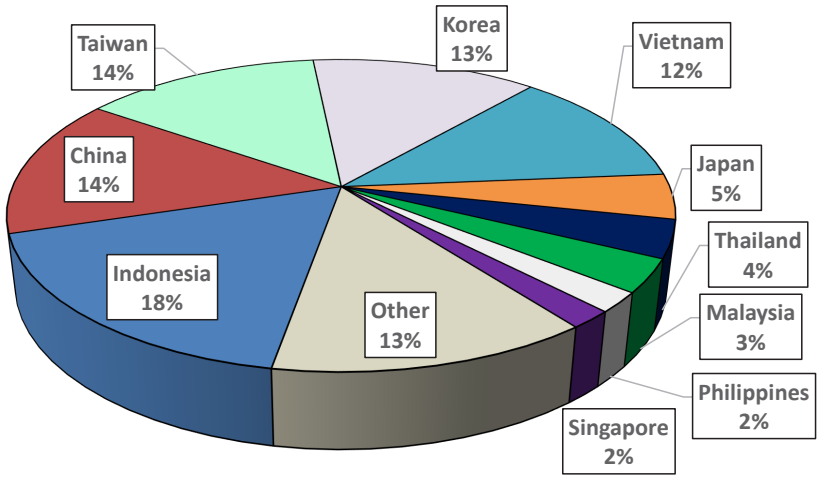
Table 18. Ocean freight rates for selected shipments, week ending 3/30/2024

Export region	Import region	Grain types	Entry date	Loading date	Volume loads (metric tons)	Freight rate (US$/metric ton)
U.S. Gulf	Japan	Heavy grain	Mar 28, 2024	Apr 20/30, 2024	50,000	71.00
U.S. Gulf	Japan	Heavy grain	Mar 9, 2024	Apr 25/May 4, 2024	54,000	67.00
U.S. Gulf	Japan	Heavy grain	Mar 20, 2024	Apr 1/5, 2024	50,000	69.50
U.S. Gulf	China	Corn	Feb 28, 2024	Mar 1/10, 2024	66,000	61.50
U.S. Gulf	China	Heavy grain	Sep 12, 2023	Oct 1/ Nov 1, 2023	66,000	54.50
U.S. Gulf	Jamaica	Wheat	Nov 2, 2023	Dec 1/10, 2023	9,460	63.50
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
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
WC US	Thailand	Wheat	Nov 9, 2023	Dec 1/10, 2023	60,500	35.25
Brazil	China	Heavy grain	Mar 28, 2024	Apr 11/21, 2024	66,000	49.00
Brazil	China	Heavy grain	Mar 19, 2024	May 1/30, 2024	63,000	48.40
Brazil	China	Soybean	Feb 23, 2024	Apr 5/20, 2024	55,000	55.00
Brazil	China	Heavy grain	Jan 20, 2024	Feb 2/8, 2024	63,000	40.50
Brazil	Philippines	Soybean Meal	Feb 23, 2024	Apr 15/25, 2024	40,000	61.00
France	Morocco	Wheat	Feb 6, 2024	Feb 10/14, 2024	30,000	16.10
France	Mauritania	Wheat	Feb 6, 2024	Feb 10/14, 2024	30,000	23.50

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.

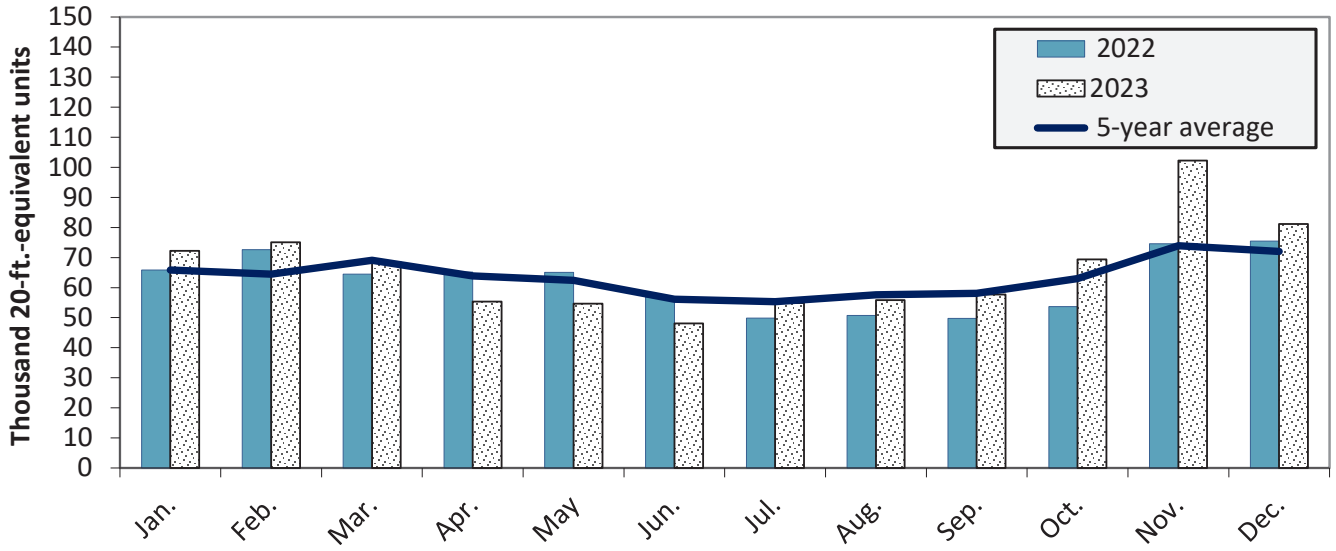
In 2020, containers were used to transport 10 percent of total U.S. waterborne grain exports. Approximately 66 percent of U.S. waterborne grain exports in 2020 went to Asia, of which 14 percent were moved in containers. Approximately 95 percent of U.S. waterborne containerized grain exports were destined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

Figure 19. Top 10 destination markets for U.S. containerized grain exports, Jan-Dec 2023



Note: The following harmonized rariff 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 20. Monthly shipments of U.S. containerized grain exports



Containerized grain shipments in Dec. 2023 were up 7.6 percent from last year and up 12.7 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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Additional Transportation Research and Analysis resources include the ***Grain Truck and Ocean Rate Advisory (GTOR)***, the ***Mexico Transport Cost Indicator Report***, and the ***Brazil Soybean Transportation Report***.

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