



Grain Transportation Report

Contents

- Weekly Highlights..... 1
- Snapshots by Sector..... 2
- Feature Article..... 3
- Grain Transportation Indicators 5
- Rail Transportation..... 7
- Barge Transportation..... 13
- Truck Transportation 16
- Grain Exports 17
- Ocean Transportation..... 21
- Contacts and Links..... 24

September 28, 2023

A weekly publication of the Agricultural Marketing Service

www.ams.usda.gov/GTR

FRA Awards over \$150 Million to Grain-related Railroad Improvements.

On September 25, the Department of Transportation's (DOT) Federal Railroad Administration (FRA) **announced** the award of over \$1.4 billion to fund 70 rail improvement projects, through its Consolidated Rail Infrastructure and Safety Improvements (CRISI) program.

Of the 70 total projects, 6 directly relate to grain transportation, and their total Federal funding amounts to over \$150 million. The largest grant (nearly \$73 million) is for the Washington State Department of Transportation's improvements to the Palouse River and Coulee City Railroad (PCC). The PCC handles wheat traffic in eastern Washington State, and the upgrades will increase wheat movements by accommodating 286,000-pound railcars (larger than previously), as well as higher speeds. This corridor serves the [Washington Grain Train program](#).

Other projects funded in this round of CRISI awards include grain-related improvements in Indiana, Kansas, North Dakota, South Dakota, and Texas. A [full list of projects](#) can be found on FRA's website.

FHWA Awards Grants for Iowa and North Dakota Infrastructure Projects. Two projects in Iowa and one in North Dakota—all three, relevant to grain transportation—were among the Federal Highway Administration's (FHWA) **newly awarded grants** for infrastructure projects. Funded by FHWA's Accelerated Innovation

Deployment (AID) Demonstration program, the projects leverage innovative transportation technologies to rebuild the Nation's infrastructure.

A \$1 million project of the Iowa DOT and Buena Vista County will map and identify Iowa's gravel road network and create an asset management tool. Accessible to county engineers across Iowa, the tool will be used to calculate performance indicators and remaining service life of the gravel roads. A \$1 million asset management pilot project of the Iowa DOT will use e-ticketing, digital as-builts, and other technologies to schedule timely and critical repairs.

Finally, a \$532,500 project of the North Dakota DOT (NDDOT) aims to prevent vehicles from striking North Dakota bridges. NDDOT will address this issue by deploying oversize vehicle measuring system technology.

FMCSA Announces New Grants for Truck Parking. The Department of Transportation's (DOT) Federal Motor Carrier Safety Administration (FMCSA) **recently announced** grant awards for a high-priority truck-parking project that is relevant to grain shippers. According to the [Federal Highway Administration](#), truck parking shortages are still a major problem in every State. Aiming to alleviate the shortages, FMCSA's budget for high-priority truck-parking projects is up 65 percent over last year.

In the most recent round of grant awards, DOT's Nationally Significant Multimodal Freight and Highway Projects (INFRA) program funds a \$22 million Memphis, TN, project to add 125 truck parking spaces at a spot along I-40. The project will also upgrade adjacent bridge structures. In a 2020, joint USDA/DOT report—[The Importance of Highways to U.S. Agriculture](#)—I-40 was analyzed as a critical grain freight corridor.



Export Sales

For the week ending September 14, [unshipped balances](#) of wheat, corn, and soybeans for marketing year (MY) 2023/24 totaled 30.26 million metric tons (mmt), down 25 percent from the same time last year.

Net [corn export sales](#) for the new MY 2023/24 were 0.567 mmt, down 25 percent from last week. Net [soybean export sales](#) were 0.434 mmt, down 38 percent from last week. Net weekly [wheat export sales](#) for MY 2023/24 were 0.308 mmt, down 30 percent from last week.

Rail

U.S. Class I railroads originated 16,294 [grain carloads](#) during the week ending September 16. This was 11 percent more than the previous week, 9 percent fewer than last year, and 14 percent fewer than the 3-year average.

Average October [shuttle secondary railcar bids/offers](#) (per car) were \$779 above tariff for the week ending September 21. This was \$175 less than last week and \$148 lower than this week last year. Average non-shuttle secondary railcar bids/offers per car were \$346 above tariff. This was \$146 more than last week and \$121 more than this week last year.

Barge

For the week ending September 23, [barged grain movements](#) totaled 196,500 tons. This was 51 percent more than the previous week and 11 percent less than the same period last year.

For the week ending September 23, 133 grain barges [moved down river](#)—52 more than last week. There were 575 grain barges [unloaded](#) in the New Orleans region, 11 percent more than last week.

Ocean

For the week ending September 21, 26 [oceangoing grain vessels](#) were loaded in the Gulf—24 percent more than the same period last year. Within the next 10 days (starting September 22), 45 vessels were expected to be loaded—22 percent more than the same period last year.

As of September 21, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$57.50. This was 6 percent more than the previous week. The rate from the Pacific Northwest to Japan was \$30.50 per mt, 5 percent more than the previous week.

Fuel

For the week ending September 25, the U.S. average [diesel fuel price](#) decreased 4.7 cents from the previous week to \$4.586 per gallon, 30.3 cents below the same week last year.



Second-Quarter 2023 Corn and Soybean Transportation and Landed Costs Decline

Transportation costs for shipping corn and soybeans from Minneapolis, MN, to Japan decreased from second quarter 2022 to second quarter 2023 (year to year) and from first quarter 2023 to second quarter 2023 (quarter to quarter). These costs fell both via the U.S. Gulf (Gulf route), and via the Pacific Northwest (the PNW route).

Year to year, notable drops in barge, ocean, and trucking freight rates were the main drivers behind decreases in corn and soybean transportation costs. Significantly lower barge rates largely reflected slow export sales. The lower ocean rates stemmed both from diminishing global inflation and fluctuating Chinese demand ([Grain Transportation Report \(GTR\), July 27, 2023](#)). Trucking rates fell, with lower diesel prices and softened demand for grain. Also, year to year, for corn and soybean shipments to Japan by all routes, total landed costs fell, because of significantly lower transportation costs and lower farm values.

Quarter to quarter, Gulf-route total landed costs fell more steeply for corn than for soybeans. For both commodities, PNW-route total landed costs decreased quarter to quarter (tables 1 and 2).

Table 1. Cost of shipping corn and soybeans from Minneapolis to Japan through the U.S. Gulf

| | Corn | | | | | Soybeans | | | | |
|------------------------------|---------------|--------------|--------------|----------------|------------|---------------|--------------|--------------|----------------|------------|
| | \$/metric ton | | | Percent change | | \$/metric ton | | | Percent Change | |
| | 2nd qtr. '22 | 1st qtr. '23 | 2nd qtr. '23 | Yr. to Yr. | Qtr to Qtr | 2nd qtr. '22 | 1st qtr. '23 | 2nd qtr. '23 | Yr. to Yr. | Qtr to Qtr |
| Truck | 23.40 | 14.75 | 14.19 | -39.36 | -3.80 | 23.40 | 14.75 | 14.19 | -39.36 | -3.80 |
| Barge | 44.56 | 19.86 | 17.68 | -60.32 | -10.98 | 44.56 | 19.86 | 17.68 | -60.32 | -10.98 |
| Rail | - | 46.27 | - | - | - | - | 42.67 | - | - | - |
| Ocean | 79.61 | 51.12 | 51.56 | -35.23 | 0.86 | 79.61 | 51.12 | 51.56 | -35.23 | 0.86 |
| Total transportation cost | 147.57 | 132.00 | 83.43 | -43.46 | -36.80 | 147.57 | 128.40 | 83.43 | -43.46 | -35.02 |
| Farm value | 270.33 | 256.68 | 251.96 | -6.80 | -1.84 | 589.12 | 541.36 | 519.31 | -11.85 | -4.07 |
| Total landed cost | 417.9 | 388.68 | 335.39 | -19.74 | -13.71 | 736.69 | 669.76 | 602.74 | -18.18 | -10.01 |
| Transportation % landed cost | 35.31 | 33.96 | 24.88 | -29.56 | -26.75 | 20.03 | 19.17 | 13.84 | -30.90 | -27.80 |

Table 2. Cost of shipping corn and soybeans from Minneapolis to Japan through the Pacific Northwest

| | Corn | | | | | Soybeans | | | | |
|------------------------------|---------------|--------------|--------------|----------------|------------|---------------|--------------|--------------|----------------|------------|
| | \$/metric ton | | | Percent change | | \$/metric ton | | | Percent Change | |
| | 2nd qtr. '22 | 1st qtr. '23 | 2nd qtr. '23 | Yr. to Yr. | Qtr to Qtr | 2nd qtr. '22 | 1st qtr. '23 | 2nd qtr. '23 | Yr. to Yr. | Qtr to Qtr |
| Truck | 23.40 | 14.75 | 14.19 | -39.36 | -3.80 | 23.40 | 14.75 | 14.19 | -39.36 | -3.80 |
| Rail | 53.43 | 56.21 | 56.21 | 5.20 | 0.00 | 60.58 | 63.56 | 63.56 | 4.92 | 0.00 |
| Ocean | 45.20 | 28.39 | 28.35 | -37.28 | -0.14 | 45.20 | 28.39 | 28.35 | -37.28 | -0.14 |
| Total transportation cost | 122.03 | 99.35 | 98.75 | -19.08 | -0.60 | 129.18 | 106.70 | 106.10 | -17.87 | -0.56 |
| Farm Value | 270.33 | 256.68 | 251.96 | -6.80 | -1.84 | 589.12 | 541.36 | 519.31 | -11.85 | -4.07 |
| Total Landed Cost | 392.36 | 356.03 | 350.71 | -10.62 | -1.49 | 718.30 | 648.06 | 625.41 | -12.93 | -3.50 |
| Transportation % landed cost | 31.10 | 27.90 | 28.16 | -9.47 | 0.90 | 17.98 | 16.46 | 16.96 | -5.67 | 3.04 |

Note: Barge rates are from Minneapolis to the Gulf for the second quarter and St. Louis to the Gulf for the first quarter. First quarter also includes a rail portion, from Minneapolis to St. Louis, given the closure of the Upper Mississippi River. All rail tariffs include fuel surcharges and revisions for heavy axle rail cars and shuttle trains. The rail tariff rate is a base price of rail freight rates, but during periods of high rail demand or car shortages, high auction and secondary market rates could exceed the base rail tariffs per car. USDA, National Agricultural Statistics Service is the source for corn and soybean prices. The quarter-to-quarter and year-to-year changes in transportation's share of total landed costs reflect percentage-point changes. Yr. = year; Qtr = quarter. Source: USDA, Agricultural Marketing Service.

U.S. Gulf Costs

Transportation and landed costs. Year to year, transportation costs through the Gulf fell 43 percent for corn and soybeans. For both corn and soybeans, these decreases were driven by drops in barge rates (down 60 percent), truck rates (down 39 percent), and ocean rates (down 35 percent). Quarter to quarter, transportation costs for Gulf-route shipping were down 37 percent for corn and down 35 percent for soybeans. The quarter-to-quarter decreases reflected the decline of truck and ocean rates, as well as the opening of the Upper Mississippi, which allowed full barge trips to the Gulf.

Year to year, the share of Gulf-route total landed costs comprising transportation fell for corn and soybeans. In second quarter 2023, farm values accounted for 75 percent of landed costs for corn and 86 percent of the landed costs for soybeans (see table 1).

Inspections. Accounting for 60 percent of total second-quarter 2023 corn inspections, Gulf-route corn inspections totaled 8.4 million metric tons (mmt), down 19 percent year to year. Accounting for 66 percent of total second-quarter 2023 soybean inspections, Gulf-route soybean inspections totaled 2.6 mmt, down 43 percent year to year ([GTR, August 3, 2023](#)).

Pacific Northwest Costs

Transportation and landed costs. Year to year, total PNW-route transportation costs dropped 19 percent for corn and fell 18 percent for soybeans, because of lower trucking and ocean freight rates (table 2). Quarter to quarter, transportation costs decreased 1 percent each for corn and soybeans. For the same period, PNW-route rail rates were unchanged for corn and for soybeans.

Because of both lower transportation costs and lower farm values, total PNW-route landed costs for corn decreased 1 percent quarter to quarter and fell 11 percent year to year. Similar to corn, soybean landed costs decreased 4 percent quarter to quarter and fell 13 percent year to year, as a result of lower transportation costs and lower farm values.

For PNW-route corn shipments in second quarter 2023, transportation costs accounted for 28 percent of the total landed costs, amounting to a 1-percent increase quarter to quarter and a 9-percent decrease year to year. For soybeans, transportation costs accounted for 17 percent of landed costs—a share that increased 3 percentage points quarter-to-quarter and decreased 6 percentage points year-to-year (see table 2).

Inspections. Second-quarter 2023 PNW corn inspections totaled 3 mmt, down 32 percent year to year, mainly because of decreased

shipments to Asia and Latin America ([GTR, August 3, 2023](#)). PNW corn inspections were 22 percent of total second quarter 2023 corn inspections. Second-quarter 2023 PNW soybean inspections totaled 0.212 mmt, a 62-percent decrease year to year. PNW soybean exports accounted for only 5 percent of total second-quarter 2023 soybean inspections.

Market Outlook

According to USDA's September [World Agricultural Supply and Demand Estimates](#) report, from marketing year (MY) 2022/23 to MY 2023/24, total U.S. corn exports are expected to increase 23 percent, to 52 mmt, with continued strong demand from China. Also, from MY 2022/23 to MY 2023/24, soybean exports are expected to decrease 10 percent, to 49 mmt.

Bernadette.Winston@usda.gov

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.

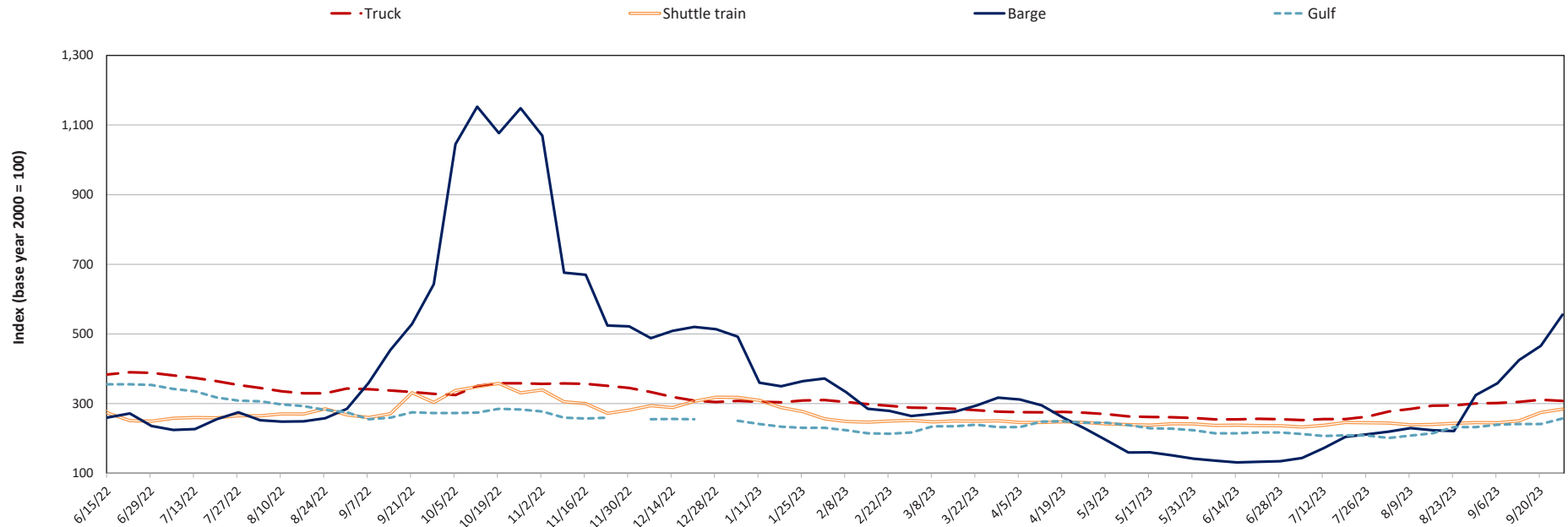
Table 1. Grain transport cost indicators

| For the week ending: | Truck | Rail | | Barge | Ocean | |
|----------------------|-------|-------------|---------|-------|-------|---------|
| | | Non-shuttle | Shuttle | | Gulf | Pacific |
| 09/27/23 | 308 | 338 | 284 | 556 | 257 | 216 |
| 09/20/23 | 311 | 357 | 274 | 466 | 242 | 206 |
| 09/28/22 | 328 | 342 | 303 | 643 | 273 | 303 |

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.

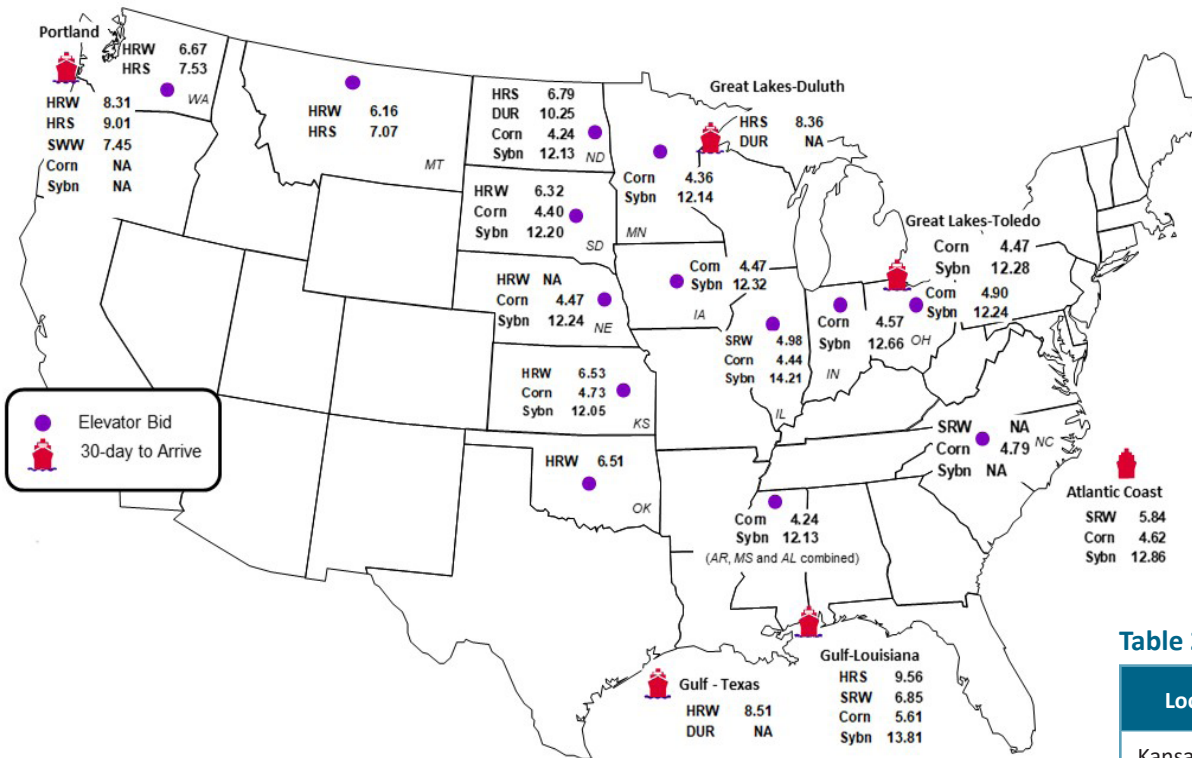
Figure 1. Grain transportation cost indicators as of week ending 09/27/23



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 | 9/22/2023 | 9/15/2023 |
|-----------|--------------------|-----------|-----------|
| Corn | IL-Gulf | -1.17 | -1.18 |
| Corn | NE-Gulf | -1.14 | -1.18 |
| Soybean | IA-Gulf | -1.49 | -1.72 |
| HRW | KS-Gulf | -1.98 | -1.98 |
| HRS | ND-Portland | -2.22 | -2.15 |

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 | 9/22/2023 | Week ago 9/15/2023 | Year ago 9/23/2022 |
|-------------|---------|-------|-----------|--------------------|--------------------|
| Kansas City | Wheat | Dec | 7.094 | 7.346 | 9.410 |
| Minneapolis | Wheat | Dec | 7.704 | 7.830 | 9.406 |
| Chicago | Wheat | Dec | 5.816 | 5.944 | 8.676 |
| Chicago | Corn | Dec | 4.764 | 4.760 | 6.734 |
| Chicago | Soybean | Nov | 12.946 | 13.364 | 14.234 |

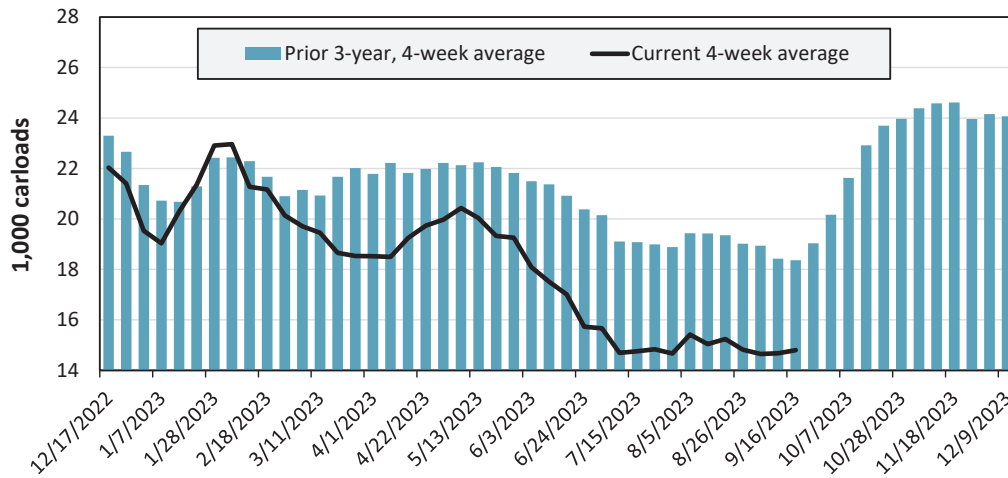
Sources: U.S. Inland: GeoGrain, USDA Weekly Bids, U.S. Export: Corn & Soybean - Export Grain Bids, AMS, USDA Wheat Bids - Weekly Wheat Report, U.S. Wheat Associates, Washington, DC.

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

| For the week ending: 9/16/2023 | East | | West | | U.S. total | Central U.S./Canada | |
|-----------------------------------|--------|---------|---------|---------|------------|---------------------|---------|
| | CSXT | NS | BNSF | UP | | CPKC | CN |
| This week | 1,072 | 1,275 | 10,142 | 3,805 | 16,294 | 6,047 | 5,262 |
| This week last year | 1,088 | 1,931 | 9,435 | 5,421 | 17,875 | 12,326 | 5,442 |
| 2023 YTD | 63,074 | 93,346 | 319,422 | 188,951 | 664,793 | 309,760 | 157,796 |
| 2022 YTD | 64,466 | 89,174 | 399,314 | 211,570 | 764,524 | 332,682 | 126,210 |
| 2023 YTD as % of 2022 YTD | 98 | 105 | 80 | 89 | 87 | 93 | 125 |
| Last 4 weeks as % of 2022 | 83 | 75 | 88 | 74 | 82 | 103 | 111 |
| Last 4 weeks as % of 3-yr. avg. | 83 | 82 | 84 | 73 | 81 | 101 | 105 |
| Total 2022 | 93,428 | 130,709 | 570,232 | 296,945 | 1,091,314 | 538,276 | 213,829 |

Note: The last 4-week percentages compare the last 4 weeks of this year to the closest 4 weeks last year, and to the average across the prior 3 years. The U.S. total column excludes CPKC. NS = Norfolk Southern; UP = Union Pacific; CN = Canadian National; CPKC = Canadian Pacific Kansas City; YTD = year-to-date; avg. = average; yr. = year.
Source: Association of American Railroads.

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



For the 4 weeks ending September 16, grain carloads were up 1 percent from the previous week, down 18 percent from last year, and down 19 percent from the 3-year average.

Source: Association of American Railroads.

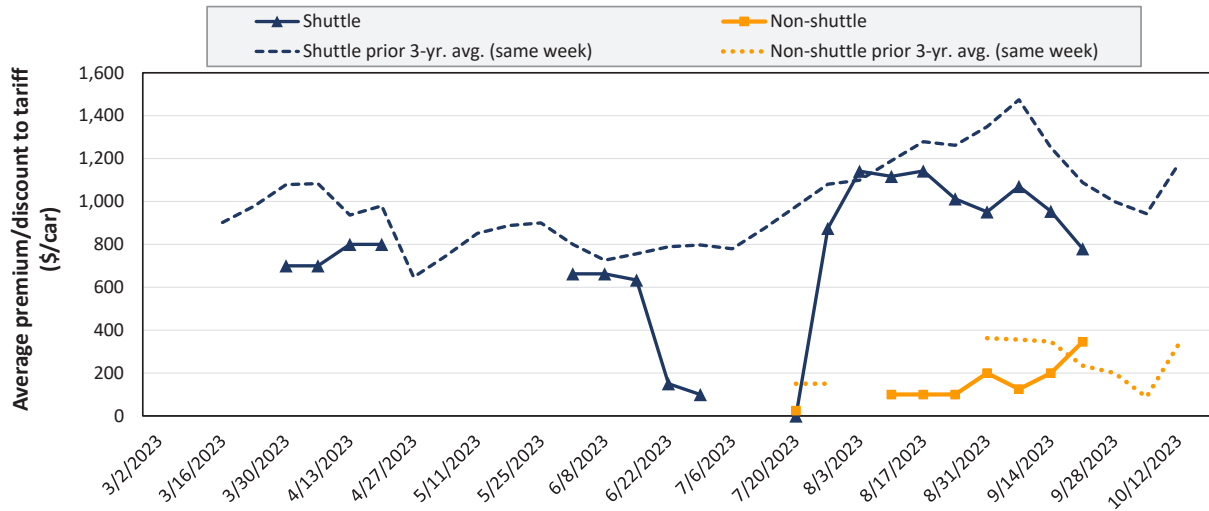
Table 4. Railcar auction offerings (dollars per car)

| For the week ending: 9/21/2023 | | Delivery period | | | | | | | |
|-----------------------------------|----------------------|-----------------|--------|----------|---------|----------|--------|--------|---------|
| | | Oct-23 | Oct-22 | Nov-23 | Nov-22 | Dec-23 | Dec-22 | Jan-24 | Jan-23 |
| BNSF | COT grain units | no offer | 0 | no offer | no bids | no offer | 0 | 98 | no bids |
| | COT grain single-car | n/a | 0 | 337 | 0 | 0 | 0 | 271 | no bids |
| UP | GCAS/vouchers | n/a | n/a | 96 | n/a | 43 | n/a | n/a | 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 October 2023



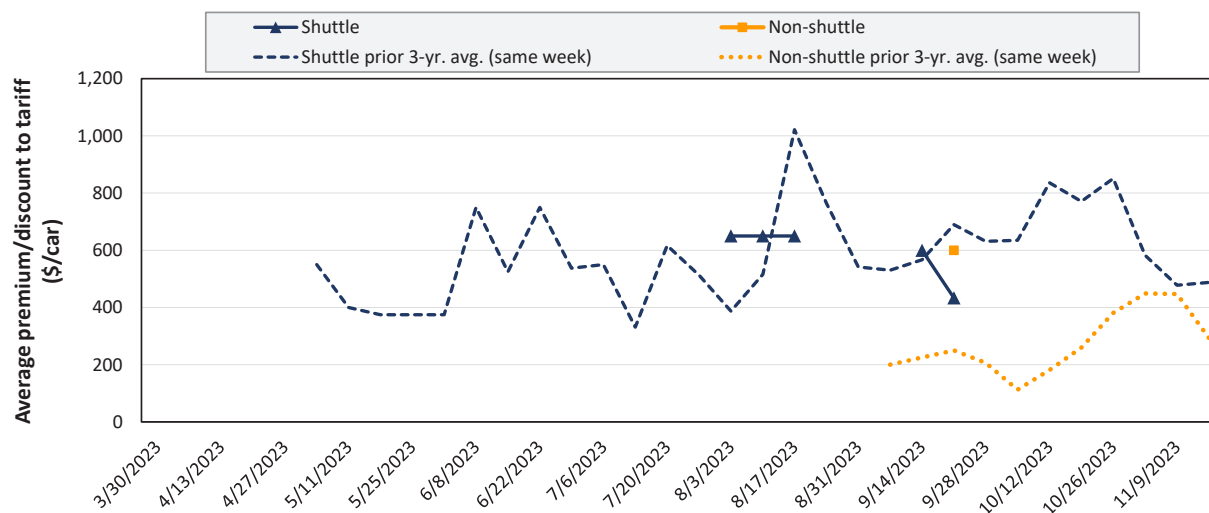
Average non-shuttle bids/offers rose \$146 this week, and are at the peak.

Average shuttle bids/offers fell \$175 this week and are \$363 below the peak.

| 9/21/2023 | BNSF | UP |
|-------------|-------|-------|
| Non-Shuttle | \$517 | \$175 |
| Shuttle | \$871 | \$688 |

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 November 2023



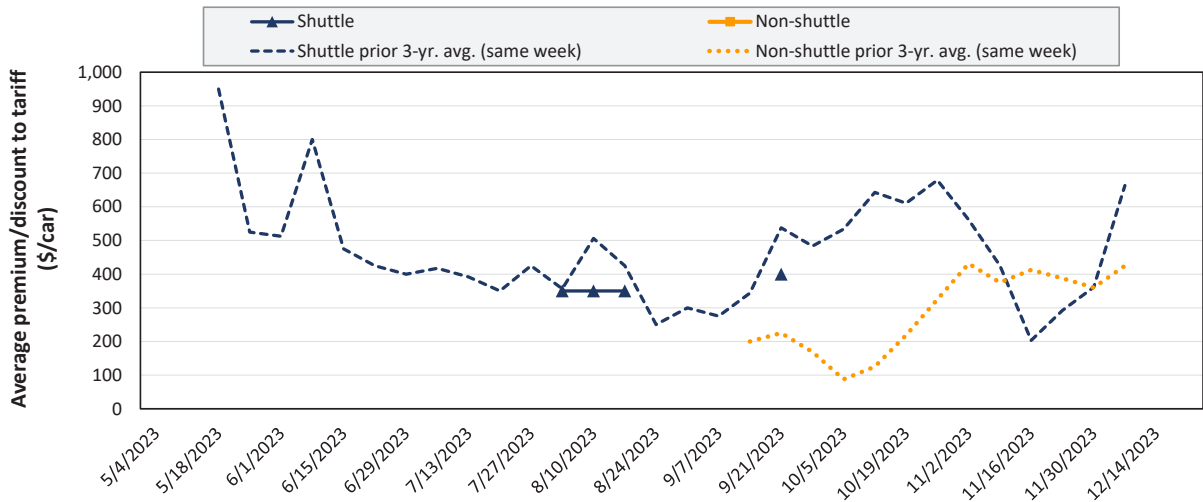
There were no non-shuttle bids/offers last week. Average non-shuttle bids/offers this week are at the peak.

Average shuttle bids/offers fell \$167 this week and are \$217 below the peak.

| 9/21/2023 | BNSF | UP |
|-------------|-------|-----|
| Non-Shuttle | \$600 | n/a |
| Shuttle | \$433 | 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 December 2023



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

There were no shuttle bids/offers last week. Average shuttle bids/offers this week are at the peak.

| 9/21/2023 | BNSF | UP |
|-------------|-------|-----|
| Non-Shuttle | n/a | n/a |
| Shuttle | \$400 | 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: 9/21/2023 | | Delivery period | | | | | |
|-----------------------------------|----------------------------|-----------------|--------|--------|--------|--------|--------|
| | | Oct-23 | Nov-23 | Dec-23 | Jan-24 | Feb-24 | Mar-24 |
| Non-shuttle | BNSF-GF | 517 | 600 | n/a | n/a | n/a | n/a |
| | Change from last week | n/a | n/a | n/a | n/a | n/a | n/a |
| | Change from same week 2022 | 267 | 350 | n/a | n/a | n/a | n/a |
| | UP-Pool | 175 | n/a | n/a | n/a | n/a | n/a |
| | Change from last week | -25 | n/a | n/a | n/a | n/a | n/a |
| | Change from same week 2022 | -25 | n/a | n/a | n/a | n/a | n/a |
| Shuttle | BNSF-GF | 871 | 433 | 400 | n/a | n/a | n/a |
| | Change from last week | -154 | -167 | n/a | n/a | n/a | n/a |
| | Change from same week 2022 | -221 | -260 | n/a | n/a | n/a | n/a |
| | UP-Pool | 688 | n/a | n/a | n/a | n/a | n/a |
| | Change from last week | -195 | n/a | n/a | n/a | n/a | n/a |
| | Change from same week 2022 | -75 | n/a | n/a | n/a | n/a | n/a |
| | CP-GF | 450 | 600 | n/a | n/a | n/a | n/a |
| | Change from last week | -50 | n/a | n/a | n/a | n/a | n/a |
| Change from same week 2022 | -50 | 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; GF = guaranteed freight; Pool = guaranteed pool; BNSF = BNSF Railway; UP = Union Pacific Railroad; CP = Canadian Pacific Railway.
 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

| September 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 | \$182 | \$42.47 | \$1.16 | 1 |
| | Grand Forks, ND | Duluth-Superior, MN | \$4,008 | \$48 | \$40.27 | \$1.10 | 1 |
| | Wichita, KS | Los Angeles, CA | \$7,340 | \$245 | \$75.32 | \$2.05 | -9 |
| | Wichita, KS | New Orleans, LA | \$4,825 | \$320 | \$51.10 | \$1.39 | -1 |
| | Sioux Falls, SD | Galveston-Houston, TX | \$7,111 | \$201 | \$72.61 | \$1.98 | -8 |
| | Colby, KS | Galveston-Houston, TX | \$5,075 | \$351 | \$53.88 | \$1.47 | -2 |
| | Amarillo, TX | Los Angeles, CA | \$5,121 | \$489 | \$55.71 | \$1.52 | -7 |
| Corn | Champaign-Urbana, IL | New Orleans, LA | \$4,000 | \$362 | \$43.32 | \$1.10 | -7 |
| | Toledo, OH | Raleigh, NC | \$8,551 | \$413 | \$89.01 | \$2.26 | 1 |
| | Des Moines, IA | Davenport, IA | \$2,655 | \$77 | \$27.13 | \$0.69 | 3 |
| | Indianapolis, IN | Atlanta, GA | \$6,593 | \$310 | \$68.55 | \$1.74 | 2 |
| | Indianapolis, IN | Knoxville, TN | \$5,564 | \$201 | \$57.25 | \$1.45 | 3 |
| | Des Moines, IA | Little Rock, AR | \$4,250 | \$225 | \$44.44 | \$1.13 | 1 |
| | Des Moines, IA | Los Angeles, CA | \$6,130 | \$656 | \$67.39 | \$1.71 | -5 |
| Soybeans | Minneapolis, MN | New Orleans, LA | \$3,156 | \$538 | \$36.68 | \$1.00 | -33 |
| | Toledo, OH | Huntsville, AL | \$7,037 | \$294 | \$72.80 | \$1.98 | 1 |
| | Indianapolis, IN | Raleigh, NC | \$7,843 | \$419 | \$82.04 | \$2.23 | 1 |
| | Indianapolis, IN | Huntsville, AL | \$5,689 | \$199 | \$58.47 | \$1.59 | 3 |
| | Champaign-Urbana, IL | New Orleans, LA | \$5,040 | \$362 | \$53.65 | \$1.46 | -3 |

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

| September 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 | \$141 | \$46.51 | \$1.27 | -4 |
| | Wichita, KS | Galveston-Houston, TX | \$4,611 | \$110 | \$46.88 | \$1.28 | -5 |
| | Chicago, IL | Albany, NY | \$7,090 | \$390 | \$74.28 | \$2.02 | 1 |
| | Grand Forks, ND | Portland, OR | \$6,201 | \$243 | \$63.99 | \$1.74 | -7 |
| | Grand Forks, ND | Galveston-Houston, TX | \$5,549 | \$253 | \$57.62 | \$1.57 | -8 |
| | Colby, KS | Portland, OR | \$5,923 | \$576 | \$64.53 | \$1.76 | -7 |
| Corn | Minneapolis, MN | Portland, OR | \$5,660 | \$296 | \$59.15 | \$1.50 | -7 |
| | Sioux Falls, SD | Tacoma, WA | \$5,620 | \$271 | \$58.50 | \$1.49 | -6 |
| | Champaign-Urbana, IL | New Orleans, LA | \$4,170 | \$362 | \$45.01 | \$1.14 | -2 |
| | Lincoln, NE | Galveston-Houston, TX | \$4,360 | \$158 | \$44.87 | \$1.14 | -2 |
| | Des Moines, IA | Amarillo, TX | \$4,670 | \$283 | \$49.19 | \$1.25 | -0 |
| | Minneapolis, MN | Tacoma, WA | \$5,660 | \$294 | \$59.12 | \$1.50 | -7 |
| Soybeans | Council Bluffs, IA | Stockton, CA | \$5,580 | \$304 | \$58.43 | \$1.48 | -8 |
| | Sioux Falls, SD | Tacoma, WA | \$6,535 | \$271 | \$67.59 | \$1.84 | -7 |
| | Minneapolis, MN | Portland, OR | \$6,585 | \$296 | \$68.33 | \$1.86 | -7 |
| | Fargo, ND | Tacoma, WA | \$6,435 | \$241 | \$66.30 | \$1.80 | -6 |
| | Council Bluffs, IA | New Orleans, LA | \$5,270 | \$418 | \$56.48 | \$1.54 | -3 |
| | Toledo, OH | Huntsville, AL | \$5,277 | \$294 | \$55.33 | \$1.51 | 1 |
| | Grand Island, NE | Portland, OR | \$5,905 | \$589 | \$64.49 | \$1.76 | -5 |

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.

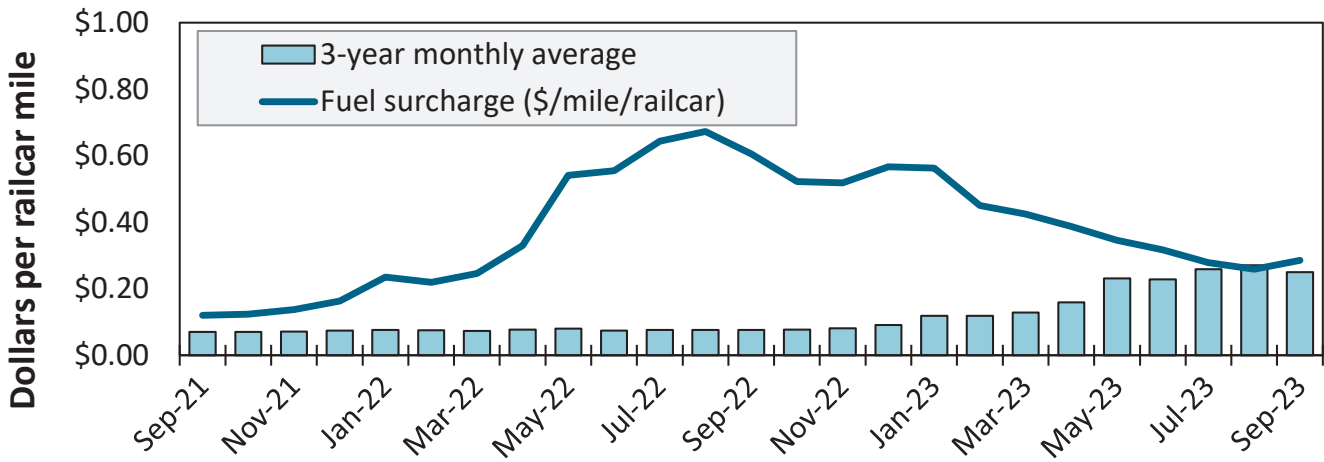
Source: BNSF Railway, Canadian National Railway, CSX Transportation, and Union Pacific Railroad.

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.

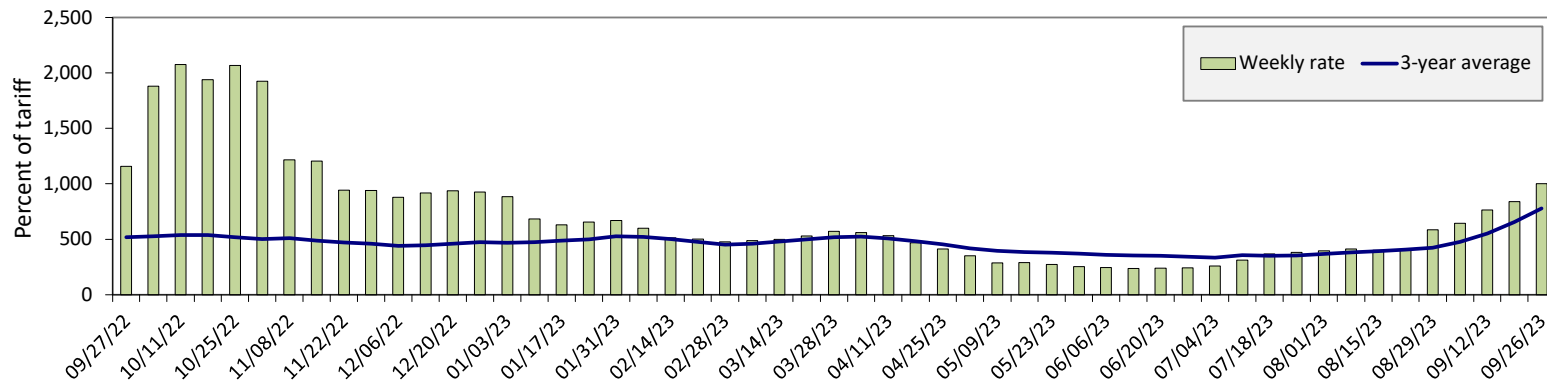
Figure 7. Railroad fuel surcharges, North American weighted average



September 2023: \$0.29/mile, up 3 cents from last month's surcharge of \$0.26/mile; down 32 cents from the September 2022 surcharge of \$0.61/mile; and up 4 cents from the September 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 September 26: 19 percent higher than the previous week; and 14 percent lower than last year; and 29 percent higher 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 | 9/26/2023 | 903 | 975 | 1000 | 1326 | 1169 | 1169 | 1689 |
| | 9/19/2023 | 825 | 853 | 839 | 961 | 969 | 969 | 1033 |
| \$/ton | 9/26/2023 | 55.90 | 51.87 | 46.40 | 52.91 | 54.83 | 47.23 | 53.03 |
| | 9/19/2023 | 51.07 | 45.38 | 38.93 | 38.34 | 45.45 | 39.15 | 32.44 |
| 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 | -23 | -20 | -14 | 6 | -13 | -13 | 18 |
| | 3-year avg. | 33 | 44 | - | 115 | 74 | 74 | 154 |
| Rate | October | 934 | 984 | 975 | 1138 | 1056 | 1056 | 1319 |
| | December | - | - | 541 | 474 | 512 | 512 | 435 |

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



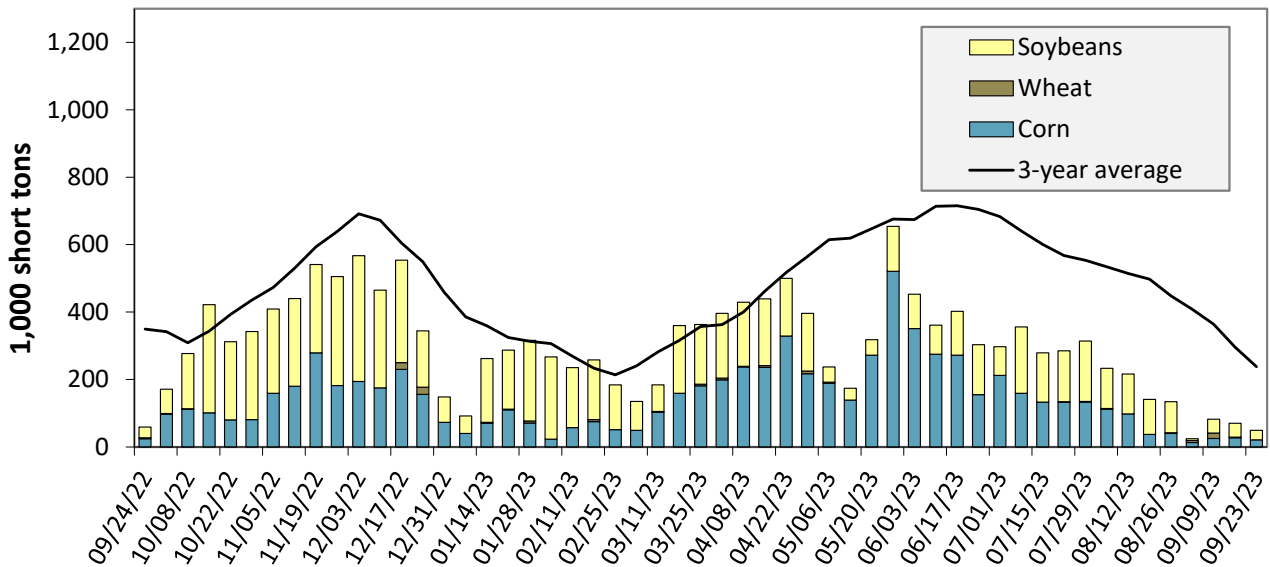
Calculating barge rate per ton:

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

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 September 23: 17 percent lower than last year and 79 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.

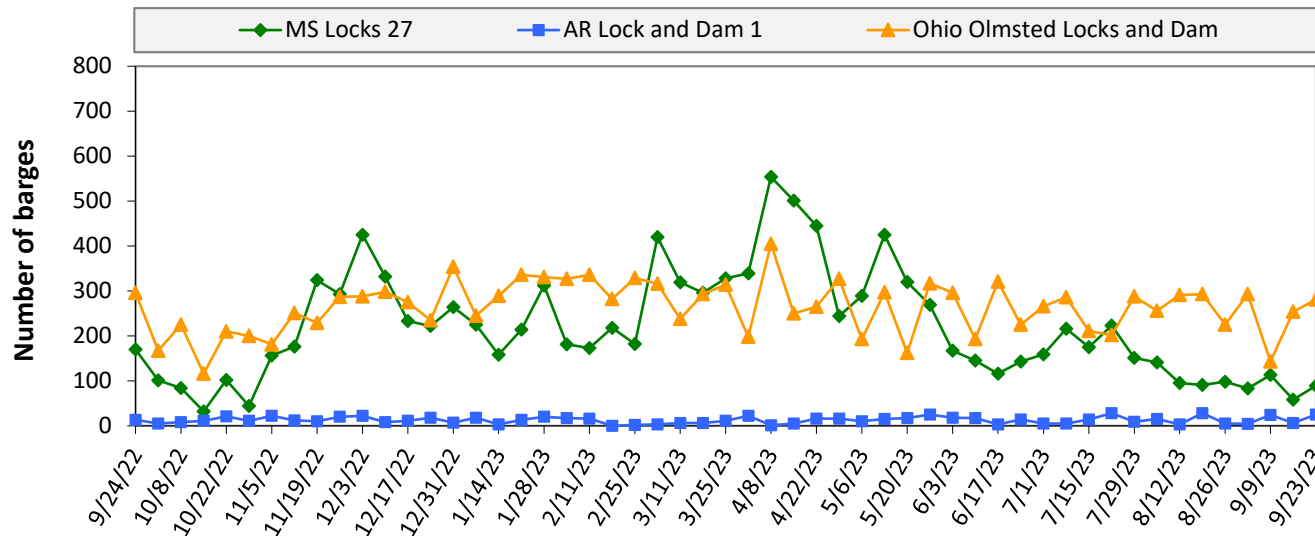
Table 10. Barged grain movements (1,000 tons)

| For the week ending 09/23/2023 | Corn | Wheat | Soybeans | Other | Total |
|--|--------|-------|----------|-------|--------|
| Mississippi River (Rock Island, IL (L15)) | 5 | 0 | 0 | 0 | 5 |
| Mississippi River (Winfield, MO (L25)) | 13 | 0 | 12 | 0 | 25 |
| Mississippi River (Alton, IL (L26)) | 19 | 0 | 28 | 0 | 47 |
| Mississippi River (Granite City, IL (L27)) | 21 | 0 | 28 | 0 | 48 |
| Illinois River (La Grange) | 0 | 0 | 11 | 0 | 11 |
| Ohio River (Olmsted) | 47 | 15 | 41 | 0 | 102 |
| Arkansas River (L1) | 0 | 4 | 42 | 0 | 47 |
| Weekly total - 2023 | 67 | 19 | 111 | 0 | 197 |
| Weekly total - 2022 | 105 | 7 | 106 | 2 | 220 |
| 2023 YTD | 8,935 | 1,117 | 7,431 | 202 | 17,685 |
| 2022 YTD | 13,296 | 1,469 | 8,884 | 190 | 23,839 |
| 2023 as % of 2022 YTD | 67 | 76 | 84 | 106 | 74 |
| Last 4 weeks as % of 2022 | 55 | 125 | 65 | 21 | 68 |
| 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.

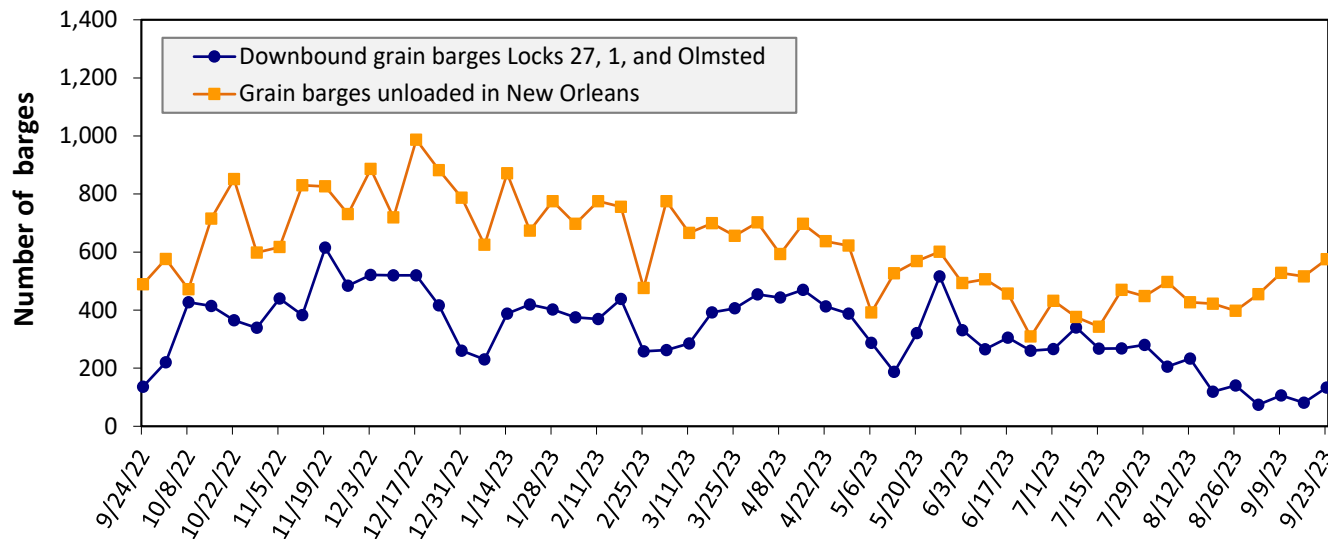
Figure 11. Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



For the week ending September 23: 395 barges transited the locks, 77 barges more than the previous week, and 8 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 September 23: 133 barges moved down river, 52 more than the previous week; 575 grain barges unloaded in the New Orleans Region, 11 percent more 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.

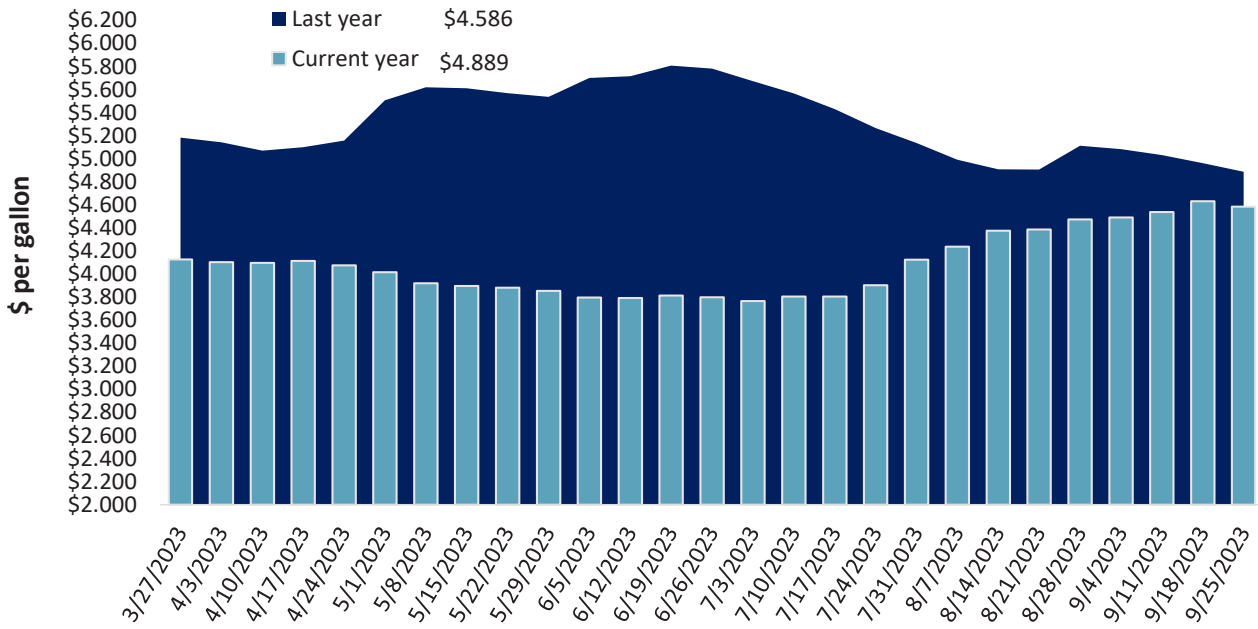
The weekly diesel price provides a proxy for trends in U.S. truck rates as diesel fuel is a significant expense for truck grain movements.

Table 11. Retail on-highway diesel prices, week ending 9/25/2023 (U.S. \$/gallon)

| Region | Location | Price | Change from | |
|--------|----------------------------|-------|-------------|----------|
| | | | Week ago | Year ago |
| I | East Coast | 4.525 | -0.012 | -0.311 |
| | New England | 4.607 | 0.020 | -0.360 |
| | Central Atlantic | 4.764 | 0.016 | -0.260 |
| | Lower Atlantic | 4.429 | -0.027 | -0.323 |
| II | Midwest | 4.439 | -0.053 | -0.442 |
| III | Gulf Coast | 4.281 | -0.071 | -0.342 |
| IV | Rocky Mountain | 4.801 | -0.063 | -0.084 |
| V | West Coast | 5.687 | -0.008 | 0.120 |
| | West Coast less California | 5.229 | -0.031 | 0.135 |
| | California | 6.208 | 0.016 | 0.098 |
| Total | United States | 4.586 | -0.047 | -0.303 |

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 September 25, the U.S. average diesel fuel price decreased 4.7 cents from the previous week to \$4.586 per gallon, 30.3 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 9/14/2023 | 569 | 703 | 1,437 | 810 | 215 | 3,733 | 10,398 | 16,126 | 30,257 |
| | This week year ago | 1,057 | 491 | 1,227 | 1,010 | 115 | 3,899 | 11,457 | 24,782 | 40,139 |
| | Last 4 wks. as % of same period 2022/23 | 57 | 149 | 116 | 75 | 157 | 95 | 72 | 50 | 61 |
| Current shipped (cumulative) exports sales | 2023/24 YTD | 947 | 1,262 | 1,631 | 1,003 | 44 | 4,887 | 1,329 | 953 | 7,169 |
| | 2022/23 YTD | 1,935 | 1,367 | 1,822 | 1,348 | 34 | 6,507 | 1,027 | 945 | 8,478 |
| | YTD 2023/24 as % of 2022/23 | 49 | 92 | 90 | 74 | 130 | 75 | 129 | 101 | 85 |
| | 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 9/14/2023 | 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 | 6,111 | 4,923 | 24 | 15,227 |
| China | 636 | 3,367 | -81 | 12,616 |
| Japan | 1,376 | 991 | 39 | 10,273 |
| Columbia | 569 | 253 | 125 | 4,398 |
| Korea | 9 | 7 | 33 | 2,563 |
| Top 5 importers | 8,700 | 9,540 | -9 | 45,077 |
| Total U.S. corn export sales | 11,727 | 12,484 | -6 | 56,665 |
| % of YTD current month's export projection | 28% | 20% | | |
| Change from prior week | 567 | 583 | | |
| Top 5 importers' share of U.S. corn export sales | 74% | 76% | | 80% |
| USDA forecast September 2023 | 42,366 | 62,901 | -33 | |
| Corn use for ethanol USDA forecast, August 2023 | 131,953 | 135,128 | -2 | |

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 9/14/2023 | 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 | 6,877 | 13,325 | -48 | 32,321 |
| Mexico | 1,685 | 1,635 | 3 | 4,912 |
| Egypt | 97 | 574 | -83 | 2,670 |
| Japan | 544 | 564 | -4 | 2,259 |
| Indonesia | 314 | 231 | 36 | 1,973 |
| Top 5 importers | 9,516 | 16,330 | -42 | 44,133 |
| Total U.S. soybean export sales | 17,079 | 25,727 | -34 | 56,656 |
| % of YTD current month's export projection | 31% | 44% | | |
| Change from prior week | 434 | 843 | | |
| Top 5 importers' share of U.S. soybean export sales | 56% | 63% | | 78% |
| USDA forecast, September 2023 | 54,223 | 58,638 | -8 | |

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 9/14/2023 | 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 | 1,566 | 1,814 | -14 | 3,397 |
| Philippines | 1,227 | 1,363 | -10 | 2,615 |
| Japan | 956 | 1,047 | -9 | 2,281 |
| China | 275 | 609 | -55 | 1,740 |
| Korea | 615 | 607 | 1 | 1,426 |
| Nigeria | 132 | 515 | -74 | 1,276 |
| Taiwan | 561 | 360 | 56 | 944 |
| Thailand | 216 | 242 | -10 | 643 |
| Columbia | 158 | 379 | -58 | 537 |
| Indonesia | 254 | 231 | 10 | 469 |
| Top 10 importers | 5,959 | 7,166 | -17 | 15,327 |
| Total U.S. wheat export sales | 8,621 | 10,406 | -17 | 20,411 |
| % of YTD current month's export projection | 45% | 50% | | |
| Change from prior week | 308 | 184 | | |
| Top 10 importers' share of U.S. wheat export sales | 69% | 69% | | 75% |
| USDA forecast, September 2023 | 19,074 | 20,681 | -8 | |

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)

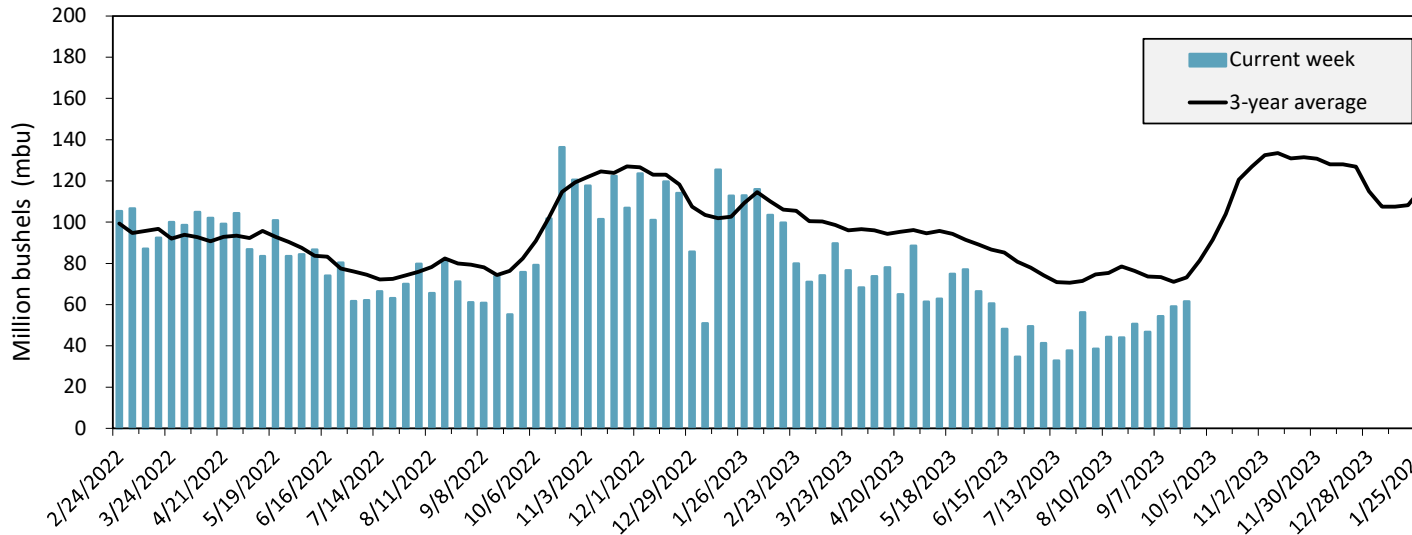
| Port regions | Commodity | For the week ending 09/21/2023 | Previous week* | Current week as % of previous | 2023 YTD* | 2022 YTD* | 2023 YTD as % of 2022 YTD | Last 4-weeks as % of: | | 2022 total* |
|---------------------------|--------------|-----------------------------------|-------------------|----------------------------------|---------------|---------------|------------------------------|-----------------------|------------------|----------------|
| | | | | | | | | Last year | Prior 3-yr. avg. | |
| Pacific Northwest | Wheat | 319 | 258 | 124 | 7,697 | 7,605 | 101 | 75 | 80 | 9,836 |
| | Corn | 0 | 0 | n/a | 3,924 | 8,953 | 44 | 0 | 0 | 9,615 |
| | Soybeans | 0 | 0 | n/a | 3,533 | 5,212 | 68 | 0 | 0 | 14,178 |
| | Total | 319 | 258 | 124 | 15,154 | 21,769 | 70 | 65 | 49 | 33,629 |
| Mississippi Gulf | Wheat | 85 | 68 | 126 | 2,803 | 3,651 | 77 | 45 | 66 | 4,053 |
| | Corn | 406 | 436 | 93 | 17,893 | 26,229 | 68 | 119 | 127 | 30,781 |
| | Soybeans | 468 | 370 | 127 | 16,409 | 16,482 | 100 | 112 | 75 | 31,283 |
| | Total | 959 | 873 | 110 | 37,105 | 46,362 | 80 | 104 | 92 | 66,116 |
| Texas Gulf | Wheat | 42 | 0 | n/a | 1,409 | 2,615 | 54 | 19 | 22 | 3,421 |
| | Corn | 0 | 0 | n/a | 233 | 557 | 42 | 21 | 13 | 648 |
| | Soybeans | 2 | 0 | n/a | 55 | 2 | n/a | n/a | 4 | 685 |
| | Total | 44 | 0 | n/a | 1,697 | 3,174 | 53 | 20 | 19 | 4,754 |
| Interior | Wheat | 25 | 91 | 27 | 1,894 | 2,316 | 82 | 74 | 87 | 2,912 |
| | Corn | 238 | 228 | 104 | 6,800 | 6,579 | 103 | 135 | 122 | 8,961 |
| | Soybeans | 32 | 74 | 44 | 4,060 | 4,836 | 84 | 100 | 79 | 7,109 |
| | Total | 295 | 393 | 75 | 12,754 | 13,731 | 93 | 109 | 103 | 18,982 |
| Great Lakes | Wheat | 0 | 21 | 0 | 223 | 266 | 84 | 21 | 22 | 395 |
| | Corn | 0 | 0 | n/a | 23 | 141 | 16 | 0 | 0 | 158 |
| | Soybeans | 0 | 8 | 0 | 65 | 239 | 27 | n/a | 71 | 760 |
| | Total | 0 | 28 | 0 | 310 | 646 | 48 | 51 | 33 | 1,312 |
| Atlantic | Wheat | 4 | 8 | 47 | 98 | 132 | 74 | 167 | 115 | 169 |
| | Corn | 5 | 0 | n/a | 86 | 263 | 33 | 13 | 27 | 309 |
| | Soybeans | 2 | 1 | n/a | 1,255 | 1,606 | 78 | 42 | 24 | 2,867 |
| | Total | 11 | 8 | 128 | 1,439 | 2,002 | 72 | 43 | 44 | 3,345 |
| U.S. total from ports* | Wheat | 474 | 444 | 107 | 14,125 | 16,585 | 85 | 59 | 67 | 20,786 |
| | Corn | 649 | 664 | 98 | 28,957 | 42,722 | 68 | 116 | 102 | 50,471 |
| | Soybeans | 505 | 452 | 112 | 25,376 | 28,378 | 89 | 102 | 60 | 56,882 |
| | Total | 1,629 | 1,561 | 104 | 68,459 | 87,684 | 78 | 88 | 75 | 128,139 |

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.

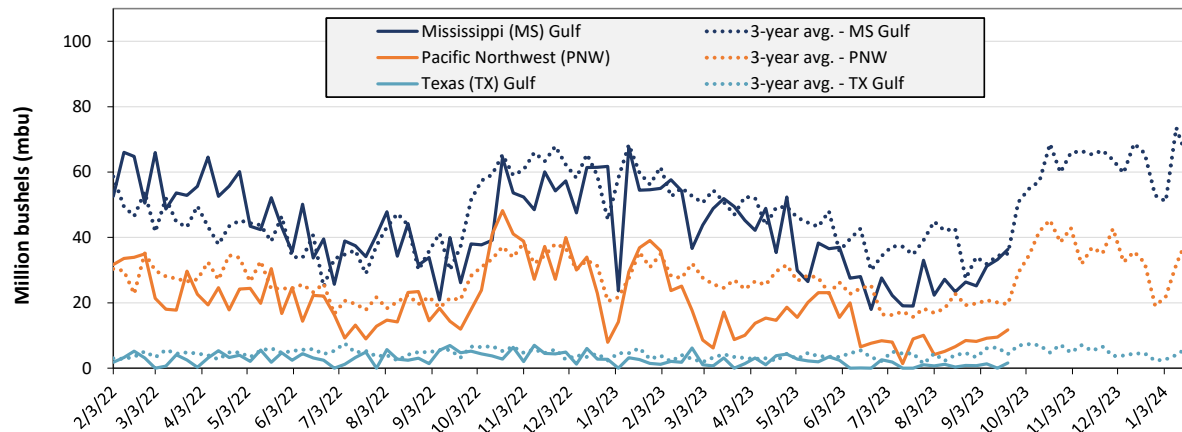
Figure 14. U.S. grain inspected for export (wheat, corn, and soybeans)



For the week ending September 21: 61.6 mbu of grain inspected, up 4 percent from the previous week, up 11 percent from the same week last year, and down 16 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 09/21/23 inspections (mbu):

MS Gulf: 36.3

PNW: 11.7

TX Gulf: 1.6

| Percent change from | MS Gulf | TX Gulf | U.S. Gulf | PNW |
|--|---------|---------|-----------|---------|
| Last week | up 9 | n/a | up 14 | up 24 |
| Last year (same week) | up 39 | down 65 | up 23 | down 2 |
| 3-year average (4-week moving average) | up 7 | down 68 | down 2 | down 42 |

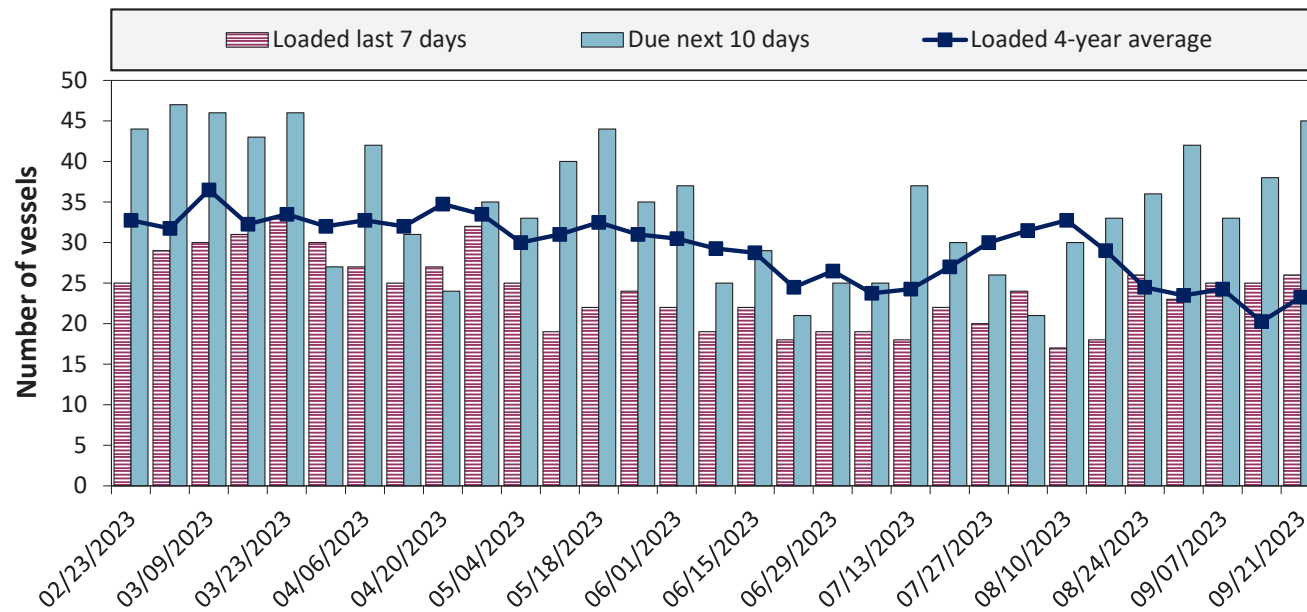
Source: USDA, Federal Grain Inspection Service.

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 |
| 9/21/2023 | 19 | 26 | 45 | 8 |
| 9/14/2023 | 18 | 25 | 38 | 9 |
| 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.

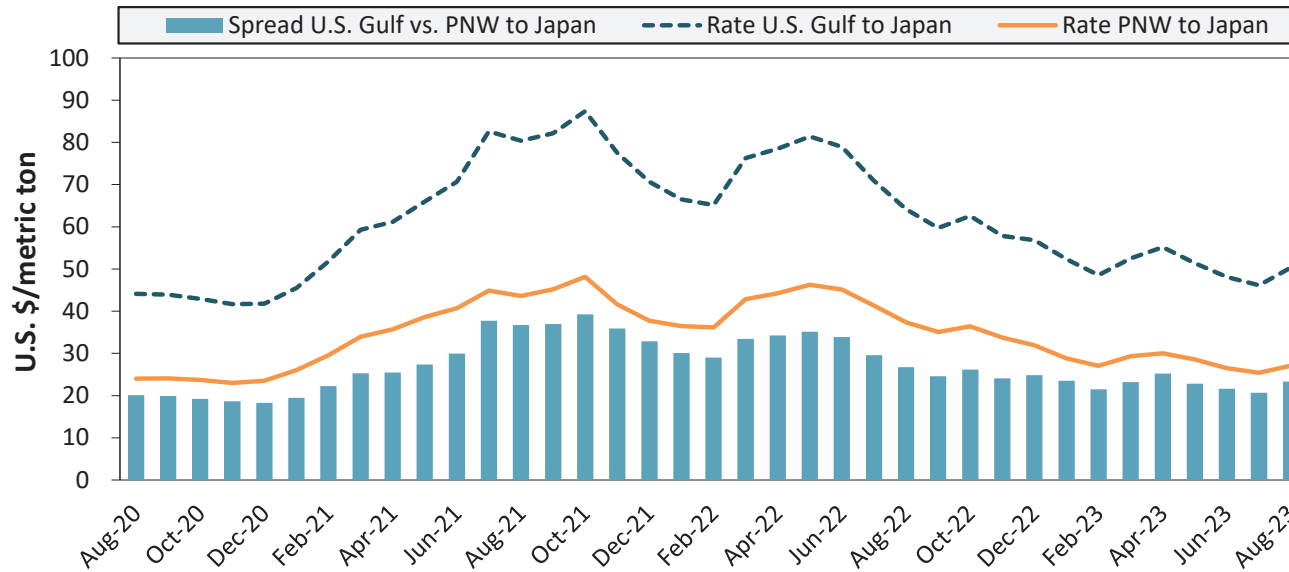
Figure 16. U.S. Gulf vessel loading activity



| Week ending 09/21/23, number of vessels | Loaded | Due |
|---|--------|-----|
| Change from last year | 24% | 22% |
| Change from 4-year average | 12% | -5% |

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 |
|----------------------------|-----------|---------|---------|
| August 2023 | \$50.40 | \$27.10 | \$23.30 |
| Change from August 2022 | -21.4% | -27.5% | -12.9% |
| Change from 4-year average | -15.6% | -18.5% | -12.1% |

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

Table 18. Ocean freight rates for selected shipments, week ending 09/23/2023

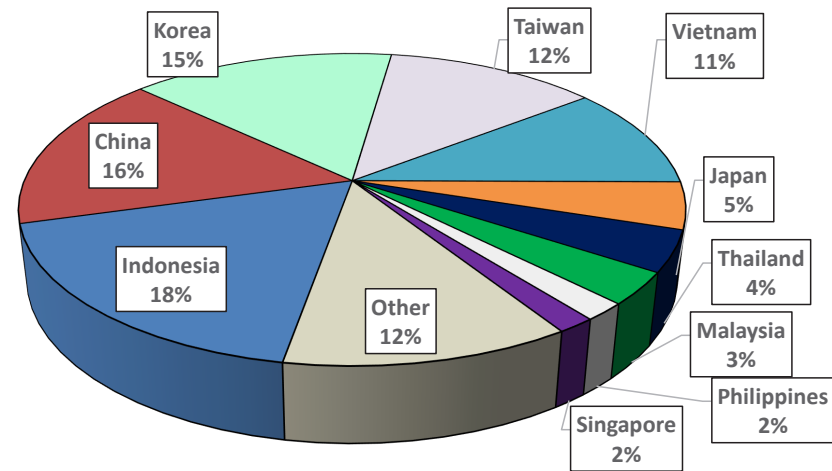
| Export region | Import region | Grain types | Loading date | Volume loads (metric tons) | Freight rate (US\$/metric ton) |
|---------------|--------------------|--------------|---------------------|----------------------------|--------------------------------|
| U.S. Gulf | Japan | Heavy grain | May 2, 2023 | 50,000 | 56.70 |
| U.S. Gulf | China | Heavy grain | Oct 1/Nov 1, 2023 | 66,000 | 54.50 |
| U.S. Gulf | China | Heavy grain | Oct 1/10, 2023 | 68,000 | 55.00 |
| U.S. Gulf | Jamaica | Wheat | Jun 20/30, 2023 | 4,400 | 63.00 op 66.00 |
| U.S. Gulf | Mexico | Soybean Meal | Oct 1/10, 2023 | 17,250 | 87.13 |
| U.S. Gulf | Dominican Republic | Soybean Meal | Oct 1/10, 2023 | 17,250 | 87.13 |
| U.S. Gulf | S. Korea | Heavy grain | Nov 1/15 | 58,000 | 64.50 |
| U.S. Gulf | S. Korea | Heavy grain | Oct 1/20, 2023 | 57,000 | 58.30 |
| PNW | Indonesia | Soybean Meal | Jul 21/31, 2023 | 35,000 | 106.00 |
| PNW | N. China | Heavy grain | May 1/4, 2023 | 66,000 | 29.00 |
| Brazil | S. Korea | Heavy grain | Jun 15/Jul 15, 2023 | 68,000 | 45.15 |
| Brazil | S. Korea | Soybean Meal | Jun 1, 2023 | 60,000 | 53.75 |
| Brazil | China | Heavy grain | Jul 1/31, 2023 | 63,000 | 41.50 |
| River Plate | China | Soybeans | Oct 15/30, 2023 | 65,000 | 46.75 |

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.

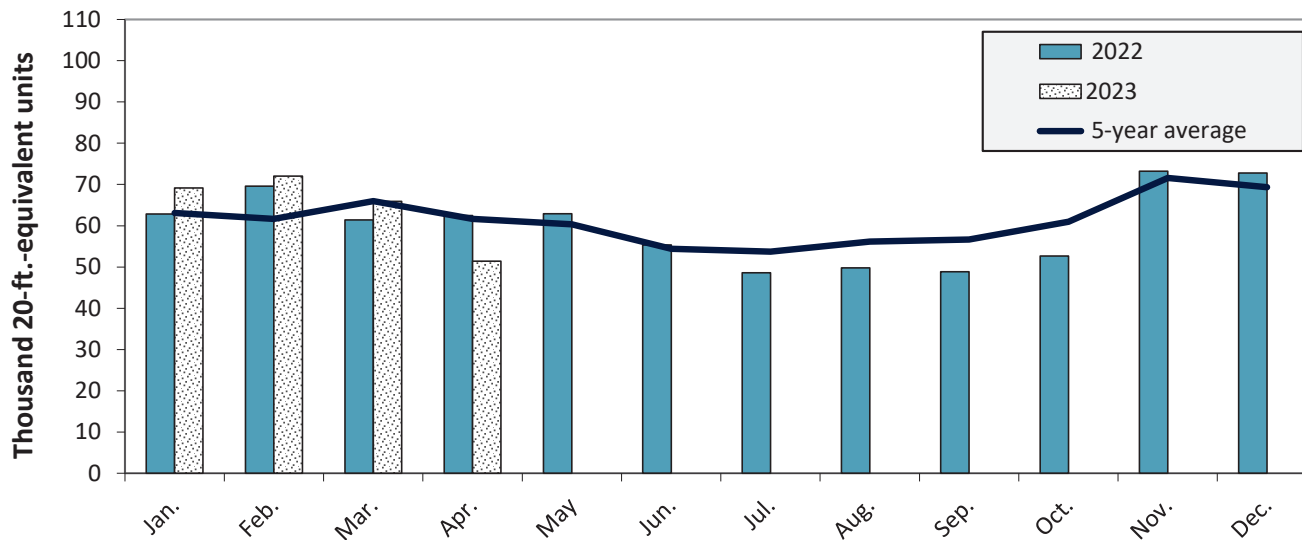
Figure 18. Top 10 destination markets for U.S. containerized grain exports, Jan-Apr 2023



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



April 2023: Containerized grain shipments were down 17.6 percent from last year and down 16.6 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.

| Title | Name | Email | Phone |
|---------------------------------|--|-------------------------------------|----------------|
| Coordinators | Surajudeen (Deen) Olowolayemo | surajudeen.olowolayemo@ams.usda.gov | (202) 720-0119 |
| | Maria Williams | maria.williams@usda.gov | (202) 690-4430 |
| | Bernadette Winston | bernadette.winston@usda.gov | (202) 690-0487 |
| Grain Transportation Indicators | Surajudeen (Deen) Olowolayemo | surajudeen.olowolayemo@ams.usda.gov | (202) 720-0119 |
| Rail Transportation | Jesse Gastelle | jesse.gastelle@ams.usda.gov | (202) 690-1144 |
| | Peter Caffarelli | petera.caffarelli@ams.usda.gov | (202) 690-3244 |
| | Rich Henderson | richard.henderson2@usda.gov | (919) 855-7801 |
| | Austin Hunt | austin.hunt@usda.gov | (540) 681-2596 |
| Barge Transportation | Rich Henderson | richard.henderson2@usda.gov | (919) 855-7801 |
| | Alexis Heyman | alexis.heyman@usda.gov | (847) 699-2414 |
| Truck Transportation | Kranti Mulik | kranti.mulik@usda.gov | (202) 756-2577 |
| | April Taylor | april.taylor@ams.usda.gov | (202) 720-7880 |
| | Alexis Heyman | alexis.heyman@usda.gov | (847) 699-2414 |
| Grain Exports | Alexis Heyman | alexis.heyman@usda.gov | (847) 699-2414 |
| | Kranti Mulik | kranti.mulik@usda.gov | (202) 756-2577 |
| | Bernadette Winston | bernadette.winston@usda.gov | (202) 690-0487 |
| Ocean Transportation | Surajudeen (Deen) Olowolayemo (Freight rates and vessels) | surajudeen.olowolayemo@ams.usda.gov | (202) 720-0119 |
| | April Taylor (Container movements) | april.taylor@ams.usda.gov | (202) 720-7880 |
| Editor | Maria Williams | maria.williams@usda.gov | (202) 690-4430 |

Subscription Information: Please sign up to receive regular email announcements of the latest GTR issue by [entering your email address](#) and selecting your preference to receive Transportation Research and Analysis. For any other information, you may contact us at GTRContactUs@usda.gov.

Preferred citation: U.S. Department of Agriculture, Agricultural Marketing Service. *Grain Transportation Report*. September 28, 2023. Web: <http://dx.doi.org/10.9752/TS056.09-28-2023>

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](#).

Photo Credit: Adobe Stock

USDA is an equal opportunity provider, employer, and lender.