



Grain Transportation Report

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Low Water on the Mississippi Continues To Worsen. According to [American Commercial Barge Line](#), as of September 18, between Cairo, IL, and the U.S. Gulf, loading drafts for barges are down 24 percent from normal, and tow sizes are down 17-38 percent from normal. These changes have resulted in transit delays of 2 to 3 days.

Loading drafts on the Illinois River and Mid-Mississippi River (including, at St. Louis, MO) have been reduced by 15 percent, and tow size has been reduced between St. Louis, MO, and Cairo, IL. After dipping to \$8.06 per ton for the week of June 6, the spot rate at St. Louis rose 376 percent, to \$38.34, this week, slightly higher than the rate of \$38.10 this time last year. ([GTR table 9](#)).

The U.S. Army Corps of Engineers continues [to dredge various portions of the MRS](#), and the forecasted precipitation should help stabilize current water levels. However, further restrictions are possible if water levels continue to fall.

Diesel Prices Increase for the 9th Consecutive Week. For the week ending September 18, the U.S. average [diesel fuel price](#) rose 9.3 cents from the previous week to \$4.633 per gallon, 33.1 cents below the same week last year. This is the highest price since \$4.754 per gallon on December 12, 2022. The average price for diesel has increased 82.7 cents per gallon over the past 9 weeks.

According to the U.S. Energy Information Administration's (EIA) [September Short-Term Energy Outlook](#), retail on-highway diesel prices

per gallon are expected to average \$4.31 in 2023 and \$4.07 in 2024. These prices are up 14 cents and 13 cents, respectively, from EIA's August forecast.

According to EIA, the diesel price forecast rose because of higher than expected August diesel crack spreads (i.e., the price of a gallon of diesel minus the price of a gallon of crude oil). The forecast also rose in response to expected drops in distillate inventories (due to rising seasonal demand and refinery maintenance) in the fall.

Hapag-Lloyd Tests Steel-Floor Containers as a Way To Combat Pests.

According to the *Journal of Commerce*, the container shipping company Hapag-Lloyd began tests last month on a steel-floor container prototype in an effort to deter [insect pests](#) and comply with World Shipping Council's [container cleaning guidelines](#). The technology was [previously used](#) in specialty containers, and Hapag-Lloyd now intends to expand its use to dry containers.

Although cheaper than steel floors, wooden floors are also riskier, because cracks in the wood give insects space to burrow and because moisture and glue (for wood repair) can attract insects. Easier to clean and repair than wood, steel lowers the likelihood of pest infestations.

Besides deterring pests, steel floors also allow shippers to fit more into containers—payloads could increase by over 50 percent.

Iowa Suspends Overweight Limits for Transporting of Grain, Fertilizer, and Manure. Effective until October 11, Iowa has issued a [harvest-time proclamation](#) suspending weight limits for vehicles transporting soybeans, corn, hay, straw, silage, stover, fertilizer (dry, liquid and gas) and manure (dry and liquid). The harvest proclamation allows vehicles to be overweight without a permit (not exceeding 90,000 pounds gross weight) when they transport the covered commodities.

According to the [Iowa Corn Growers Association \(ICGA\)](#), "With the extended weight [limits], a 500-acre Iowa corn farmer would require 12 fewer truckloads and a 1,000-acre Iowa corn farmer would require 25 fewer truckloads, which is both a time saver and a fuel saver."



Export Sales

For the week ending September 7, **unshipped balances** of wheat, corn, and soybeans for marketing year (MY) 2023/24 totaled 30.39 million metric tons (mmt), down 26 percent from the same time last year.

Net **corn export sales** for the new MY 2023/24 were 0.753 mmt. Net **soybean export sales** were 0.704 mmt. Net weekly **wheat export sales** for MY 2023/24 were 0.438 mmt.

Rail

U.S. Class I railroads originated 14,626 **grain carloads** during the week ending September 9. This was a 2-percent decrease from the previous week, 14 percent fewer than last year, and 17 percent fewer than the 3-year average.

Average September **shuttle secondary railcar bids/offers** (per car) were \$550 above tariff for the week ending September 14. This was \$558 more than last week. There were no shuttle bids/offers this week last year. Average non-shuttle secondary railcar bids/offers per car were \$700 above tariff. This was \$563 more than last week. There were no non-shuttle bids/offers this week last year.

Barge

For the week ending September 16, **barged grain movements** totaled 129,900 tons. This was 25 percent less than the previous week and 38 percent less than the same period last year.

For the week ending September 16, 81 grain barges **moved down river**—25 fewer than last week. There were 516 grain barges **unloaded** in the New Orleans region, 2 percent fewer than last week.

Ocean

For the week ending September 14, 25 **oceangoing grain vessels** were loaded in the Gulf—14 percent more than the same period last year. Within the next 10 days (starting September 15), 38 vessels were expected to be loaded—unchanged from the same period last year.

As of September 14, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$54.00. This was unchanged from the previous week. The rate from the Pacific Northwest to Japan was \$29.00 per mt, unchanged from the previous week.



Soybean Landed Costs Fell in Second Quarter 2023

The world's two leading producers of soybeans, the United States and Brazil, have long competed for the same major overseas markets—namely, China and Europe. Given China and Europe's positions as top soybean importers, low transportation and landed costs of soybeans to these destinations are essential to the competitiveness of both the United States and Brazil. This article compares quarterly and yearly changes in the costs of moving soybeans from the United States and Brazil to Shanghai, China ([table 1](#)), and to Hamburg, Germany ([table 2](#)).

Quarter-to-quarter transportation costs.

From first quarter 2023 to second quarter 2023 (quarter to quarter), costs for exporting U.S. soybeans through the U.S. Gulf to China ([table 1](#)) and Germany ([table 2](#)) decreased, as rates typically do when the Upper Mississippi River re-opens in the spring. After being closed for most of the first quarter, the upper segment of the Mississippi River re-opened in mid-March for navigation to New Orleans. However, the locks above St. Louis again closed from mid-April to mid-May, because of flooding.

Costs to ship soybeans through the Pacific Northwest (PNW) to China also fell ([table 1](#)). Truck rates also fell. Brazil's costs for exporting soybeans—to China and Germany—rose in response to higher truck and ocean freight rates.

Year-to-year transportation costs. From second quarter 2022 to second quarter 2023 (year to year), transportation costs decreased in the United States and Brazil. In the United States, lower barge and ocean freight rates pushed down total transportation costs. In Brazil, transportation costs fell in response to lower ocean rates and—for shipments from Mato Grosso—slightly lower truck rates. Even for shipments from South Goiás, where truck rates rose slightly, the higher truck rates were far outweighed by lower ocean rates, which pulled down total transportation costs.

Quarter-to-quarter landed costs. Quarter to quarter, landed costs decreased in both the United States and Brazil. For shipments through the U.S. Gulf and PNW, landed-cost decreases reflected both falling transportation costs and falling farm values. In Brazil, landed costs fell because of lower farm values that more than offset the increase in transportation costs. In second quarter 2023, transportation comprised 14-18 percent of U.S. landed costs for shipments to China ([table 1](#)) and 11-12 percent for shipments to Germany ([table 2](#)). In comparison, transportation comprised 20-26 percent Brazil's total landed costs for shipments to China ([table 1](#)) and 19-26 percent for shipments to Germany ([table 2](#)).

Year-to-year landed costs. Year to year, landed costs fell in both countries. For exports from both countries, the decrease reflected

lower transportation costs and lower soybean farm values. Most of the difference in landed costs reflect shifts in farm values. Year to year, U.S. farm values (averaged across locations) fell 11 percent, but farm values in Brazil fell nearly one-third (32 percent). In second quarter 2023, Brazilian farm values were, on average, 25 percent lower than U.S. farm values (versus only 3 percent lower in second quarter 2022). Year to year, U.S. transportation costs (averaged across locations) fell 27 percent, but transportation costs in Brazil fell 20 percent.

U.S. exports to China. According to [USDA's Federal Grain Inspection Service](#), China imported 1.02 million metric tons (mmt) of U.S. soybeans in second quarter 2023, versus 9.99 mmt in the previous quarter and 2.02 mmt in second quarter 2022. According to the September 2023 [World Agriculture Supply and Demand Estimates \(WASDE\)](#), total U.S. soybean exports in marketing year (MY) 2023/24 are projected to be 48.72 mmt, down 10 percent from MY 2022/23. Brazil's soybean exports are projected at 97 mmt, up 2 percent from MY 2022/23. For more on soybean transportation, see [Brazil Soybean Transportation](#).

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Table 1. Quarterly costs of transporting soybeans from United States and Brazil to Shanghai, China

Route	Cost	2022	2023	2023	Percent change		2022	2023	2023	Percent change	
		2nd qtr.	1st qtr.	2nd qtr.	Yr. to yr.	Qtr. to qtr.	2nd qtr.	1st qtr.	2nd qtr.	Yr. to yr.	Qtr. to qtr.
		Minneapolis, MN					Davenport, IA				
		--\$/mt--					--\$/mt--				
United States via U.S. Gulf	Truck	23.40	14.75	14.19	-39.36	-3.80	23.40	14.75	14.19	-39.36	-3.80
	Rail	-	42.67	-	-	-	-	37.93	-	-	-
	Barge	44.56	19.88	29.54	-33.71	48.59	34.72	19.88	21.93	-36.84	10.31
	Ocean	78.81	50.46	50.70	-35.67	0.48	78.81	50.46	50.70	-35.67	0.48
	Total transportation	146.77	127.76	94.43	-35.66	-26.09	136.93	123.02	86.82	-36.60	-29.43
	Farm value	589.12	541.36	519.31	-11.85	-4.07	581.78	545.03	532.78	-8.42	-2.25
	Landed cost	735.89	669.12	613.74	-16.60	-8.28	718.71	668.05	619.60	-13.79	-7.25
	Transport % of landed cost	19.94	19.09	15.39	-4.56	-3.71	19.05	18.41	14.01	-5.04	-4.40
Route	Cost	2022	2023	2023	Percent change		2022	2023	2023	Percent change	
		2nd qtr.	1st qtr.	2nd qtr.	Yr. to yr.	Qtr. to qtr.	2nd qtr.	1st qtr.	2nd qtr.	Yr. to yr.	Qtr. to qtr.
		Fargo, ND					Sioux Falls, SD				
		--\$/mt--					--\$/mt--				
United States via PNW	Truck	23.40	14.75	14.19	-39.36	-3.80	23.40	14.75	14.19	-39.36	-3.80
	Rail	59.09	68.15	65.91	11.54	-3.29	60.08	69.90	67.38	12.15	-3.61
	Ocean	44.65	28.09	27.85	-37.63	-0.85	44.65	28.09	27.85	-37.63	-0.85
	Total transportation	127.14	110.99	107.95	-15.09	-2.74	128.13	112.74	109.42	-14.60	-2.94
	Farm value	574.43	518.09	499.71	-13.01	-3.55	580.55	540.13	522.99	-9.91	-3.17
	Landed cost	701.57	629.08	607.66	-13.39	-3.40	708.68	652.87	632.41	-10.76	-3.13
	Transport % of landed cost	18.12	17.64	17.76	-0.36	0.12	18.08	17.27	17.30	-0.78	0.03
Route	Cost	2022	2023	2023	Percent change		2022	2023	2023	Percent change	
		2nd qtr.	1st qtr.	2nd qtr.	Yr. to yr.	Qtr. to qtr.	2nd qtr.	1st qtr.	2nd qtr.	Yr. to yr.	Qtr. to qtr.
		North MT - Santos					South GO - Paranagua				
		--\$/mt--					--\$/mt--				
Brazil	Truck	102.44	96.25	100.36	-2.03	4.27	59.39	57.77	59.45	0.10	2.91
	Ocean	65.75	33.50	35.20	-46.46	5.07	67.75	35.00	36.70	-45.83	4.86
	Total transportation	168.19	129.75	135.56	-19.40	4.48	127.14	92.77	96.15	-24.37	3.64
	Farm Value	566.29	472.04	384.93	-32.03	-18.45	565.92	479.17	390.39	-31.02	-18.53
	Landed Cost	734.48	601.79	520.49	-29.13	-13.51	693.06	571.94	486.54	-29.80	-14.93
	Transport % of landed cost	22.90	21.56	26.04	3.15	4.48	18.34	16.22	19.76	1.42	3.54

Note: Rail rates include fuel surcharges, but do not include the cost of purchasing empty rail cars in the secondary rail markets. That cost could exceed the rail tariff rate plus fuel surcharge shown in the table. Second quarter rates were revised from what were previously published. Source for the U.S. Ocean freight rates: O'Neil Commodity Consulting. Source for the U.S. farm values: USDA, National Agricultural Statistics Service. Landed cost are transportation cost plus farm value. For transportation as a percentage of landed costs, the year-to-year and quarter-to-quarter columns record percentage-point differences. Brazil's producing regions: MT= Mato Grosso, GO = Goiás. Brazil's export ports: Santos and Paranagua. Source for Brazil's ocean freight rates: University of São Paulo, Brazil, and USDA, Agricultural Marketing Service. Source for Brazil's farm values: Companhia Nacional de Abastecimento. qtr. = quarter; yr. = year; mt = metric ton; "-" indicates data not required or applicable. Totals may not add up exactly because of rounding.
Source: USDA, Agricultural Marketing Service.

Table 2. Quarterly costs of transporting soybeans from United States and Brazil to Hamburg, Germany

Route	Cost	2022 2nd qtr.	2023 1st qtr.	2023 2nd qtr.	Percent change		2022 2nd qtr.	2023 1st qtr.	2023 2nd qtr.	Percent change	
					Yr. to yr.	Qtr. to qtr.				Yr. to yr.	Qtr. to qtr.
		Minneapolis, MN					Davenport, IA				
		--\$/mt--					--\$/mt--				
United States via U.S. Gulf	Truck	23.40	14.75	14.19	-39.36	-3.80	23.40	14.75	14.19	-39.36	-3.80
	Rail	-	42.67	-	-	-	-	37.93	-	-	-
	Barge	44.56	19.88	29.54	-33.71	48.59	34.72	19.88	21.93	-36.84	10.31
	Ocean	33.35	26.09	27.98	-16.10	7.24	33.35	26.09	27.98	-16.10	7.24
	Total transportation	101.31	103.39	71.71	-29.22	-30.64	91.47	98.65	64.10	-29.92	-35.02
	Farm value	589.12	541.36	519.31	-11.85	-4.07	581.78	545.03	532.78	-8.42	-2.25
	Landed cost	690.43	644.75	591.02	-14.40	-8.33	673.25	643.68	596.88	-11.34	-7.27
	Transport % of landed cost	14.67	16.04	12.13	-2.54	-3.90	13.59	15.33	10.74	-2.85	-4.59
Route	Cost	2022 2nd qtr.	2023 1st qtr.	2023 2nd qtr.	Percent change		2022 2nd qtr.	2023 1st qtr.	2023 2nd qtr.	Percent change	
					Yr. to yr.	Qtr. to qtr.				Yr. to yr.	Qtr. to qtr.
		North MT - Santos					South GO - Paranagua				
		--\$/mt--					--\$/mt--				
Brazil	Truck	102.44	96.25	100.36	-2.03	4.27	59.39	57.77	59.45	0.10	2.91
	Ocean	55.85	31.65	33.20	-40.56	4.90	54.60	31.00	32.50	-40.48	4.84
	Total transportation	158.29	127.90	133.56	-15.62	4.43	113.99	88.77	91.95	-19.34	3.58
	Farm Value	566.29	472.04	384.93	-32.03	-18.45	565.92	479.17	390.39	-31.02	-18.53
	Landed Cost	724.58	599.94	518.49	-28.44	-13.58	679.91	567.94	482.34	-29.06	-15.07
	Transport % of landed cost	21.85	21.32	25.76	3.91	4.44	16.77	15.63	19.06	2.30	3.43

Note: Rail rates include fuel surcharges, but do not include the cost of purchasing empty rail cars in the secondary rail markets. That cost could exceed the rail tariff rate plus fuel surcharge shown in the table. Second quarter rates were revised from what were previously published. Source for the U.S. Ocean freight rates: O'Neil Commodity Consulting. Source for the U.S. farm values: USDA, National Agricultural Statistics Service. Landed costs are transportation cost plus farm value. For transportation as a percentage of landed costs, the year-to-year and quarter-to-quarter columns record percentage-point differences. Brazil's producing regions: MT= Mato Grosso, GO = Goiás. Brazil's export ports: Santos and Paranagua. Source for Brazil's ocean freight rates: University of São Paulo, Brazil, and USDA, Agricultural Marketing Service. Source for Brazil's farm values: Companhia Nacional de Abastecimento. qtr. = quarter; yr. = year; mt = metric ton; "-" indicates data not required or applicable. Totals may not add up exactly because of rounding. Source: USDA, Agricultural Marketing Service.

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.

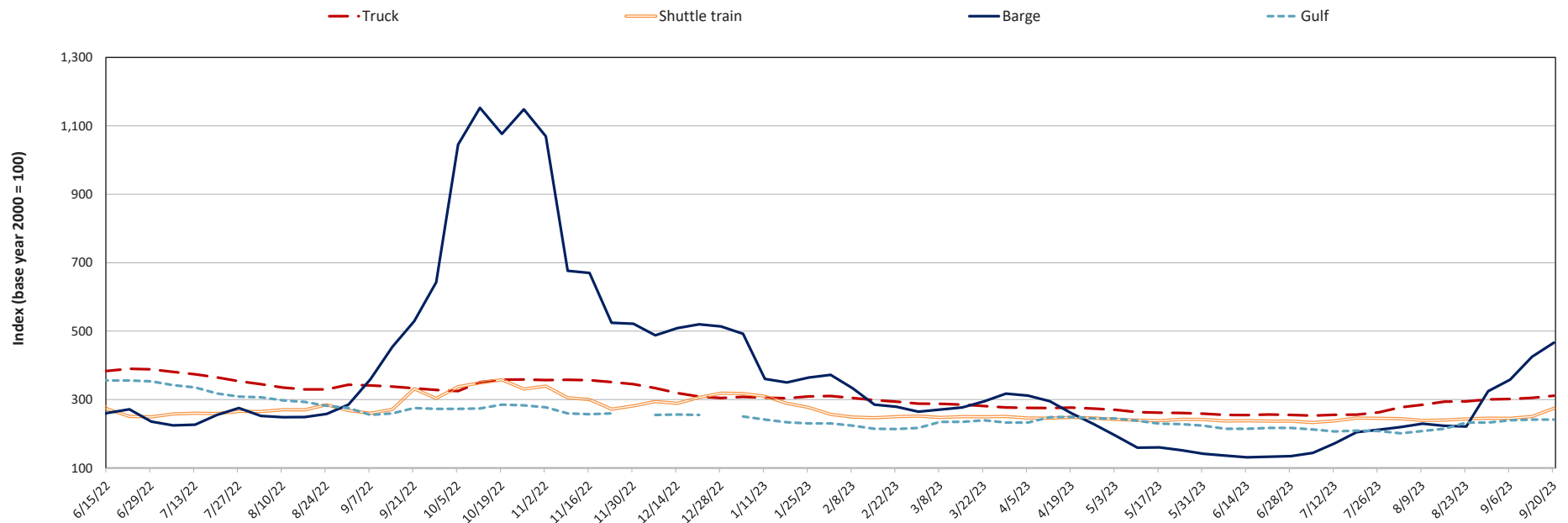
Table 1. Grain transport cost indicators

For the week ending:	Truck	Rail		Barge	Ocean	
		Non-shuttle	Shuttle		Gulf	Pacific
09/20/23	311	357	274	466	242	206
09/13/23	305	326	250	425	242	206
09/21/22	333	343	331	529	275	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.

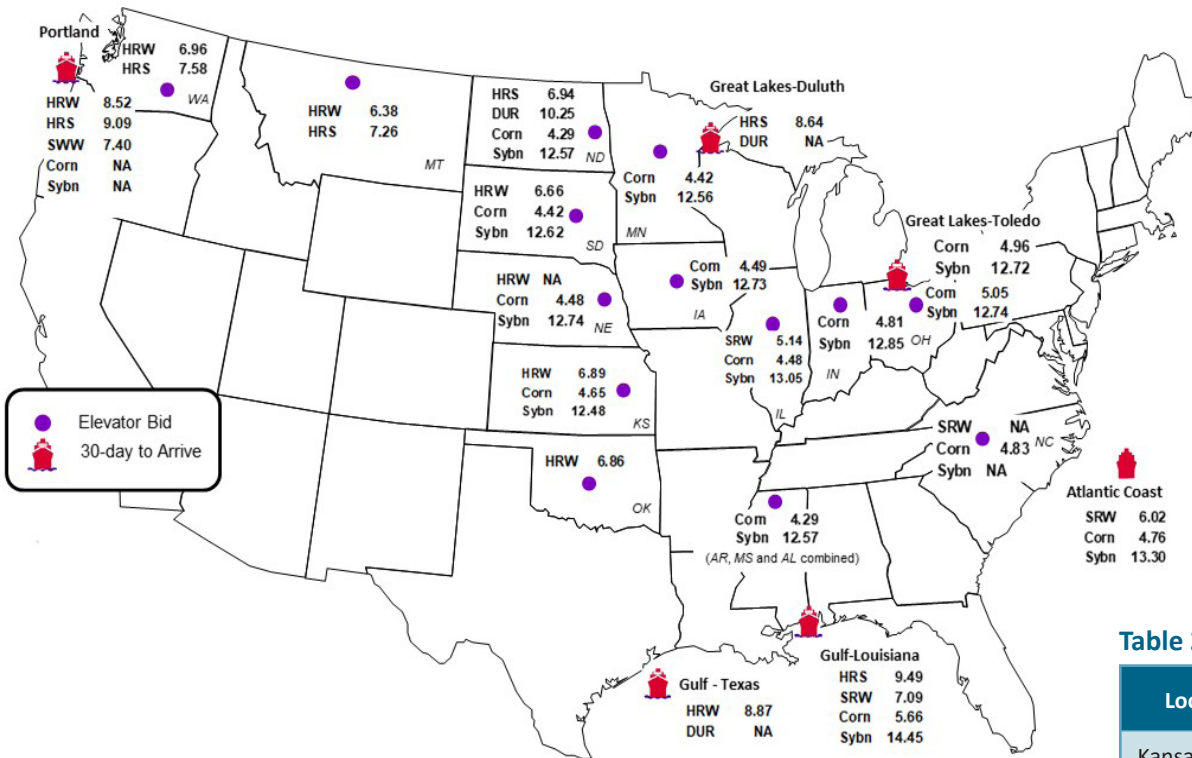
Figure 1. Grain transportation cost indicators as of week ending 09/20/23



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: 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	9/15/2023	9/8/2023
Corn	IL-Gulf	-1.18	-1.09
Corn	NE-Gulf	-1.18	-1.10
Soybean	IA-Gulf	-1.72	-1.49
HRW	KS-Gulf	-1.98	-1.98
HRS	ND-Portland	-2.15	-2.11

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	9/15/2023	Week ago 9/8/2023	Year ago 9/16/2022
Kansas City	Wheat	Dec	7.346	7.252	9.134
Minneapolis	Wheat	Dec	7.830	7.660	9.216
Chicago	Wheat	Dec	5.944	5.924	8.370
Chicago	Corn	Dec	4.760	4.856	6.722
Chicago	Soybean	Nov	13.364	13.686	14.450

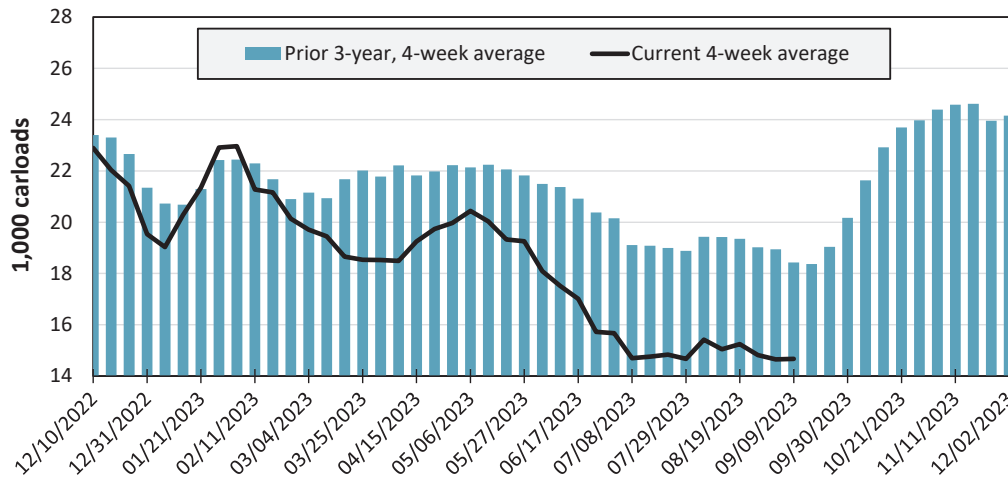
Sources: U.S. Inland: GeoGrain, USDA Weekly Bids, U.S. Export: Corn & Soybean - Export Grain Bids, AMS, USDA Wheat Bids - Weekly Wheat Report, U.S. Wheat Associates, Washington, DC.

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

For the week ending: 9/09/2023	East		West		U.S. total	Central U.S./Canada	
	CSXT	NS	BNSF	UP		CPKC	CN
This week	1,131	1,424	7,549	4,522	14,626	5,339	3,950
This week last year	951	1,858	9,412	4,832	17,053	11,328	3,589
2023 YTD	62,002	92,071	309,280	185,146	648,499	303,713	152,534
2022 YTD	63,378	87,243	389,879	206,149	746,649	320,356	120,768
2023 YTD as % of 2022 YTD	98	106	79	90	87	95	126
Last 4 weeks as % of 2022	77	81	80	78	80	109	115
Last 4 weeks as % of 3-yr. avg.	80	84	79	78	80	103	93
Total 2022	93,428	130,714	570,232	296,945	1,091,319	538,276	213,846

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 9, grain carloads were unchanged from the previous week, down 20 percent from last year, and down 20 percent from the 3-year average.

Source: Association of American Railroads.

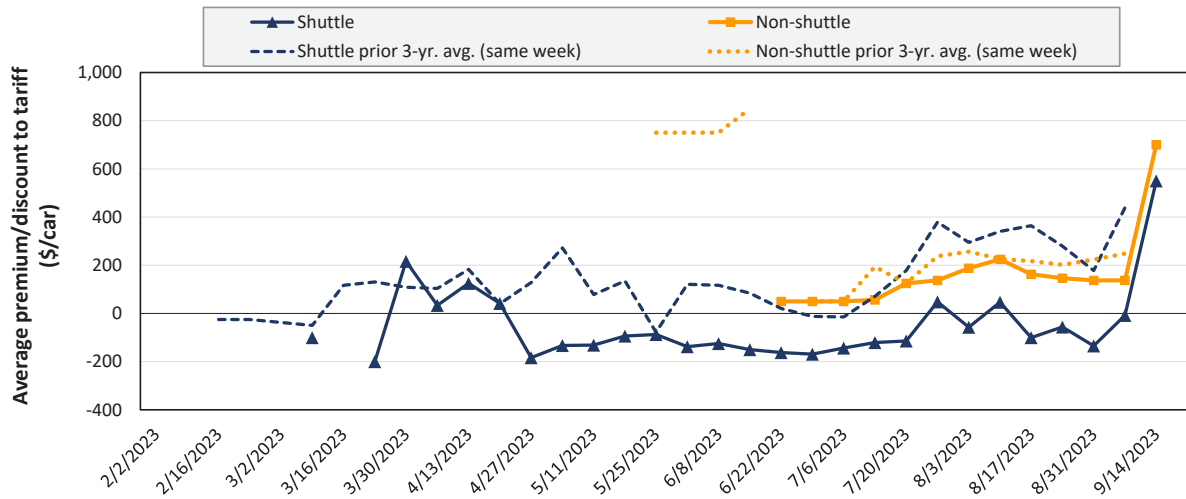
Table 4. Railcar auction offerings (dollars per car)

For the week ending: 9/14/2023		Delivery period							
		Sep-23	Sep-22	Oct-23	Oct-22	Nov-23	Nov-22	Dec-23	Dec-22
BNSF	COT grain units	no offer	n/a	no offer	0	no offer	no bids	no offer	0
	COT grain single-car	0	n/a	405	201	401	84	367	1
UP	GCAS/vouchers	n/a	n/a	21	n/a	10	n/a	10	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 September 2023



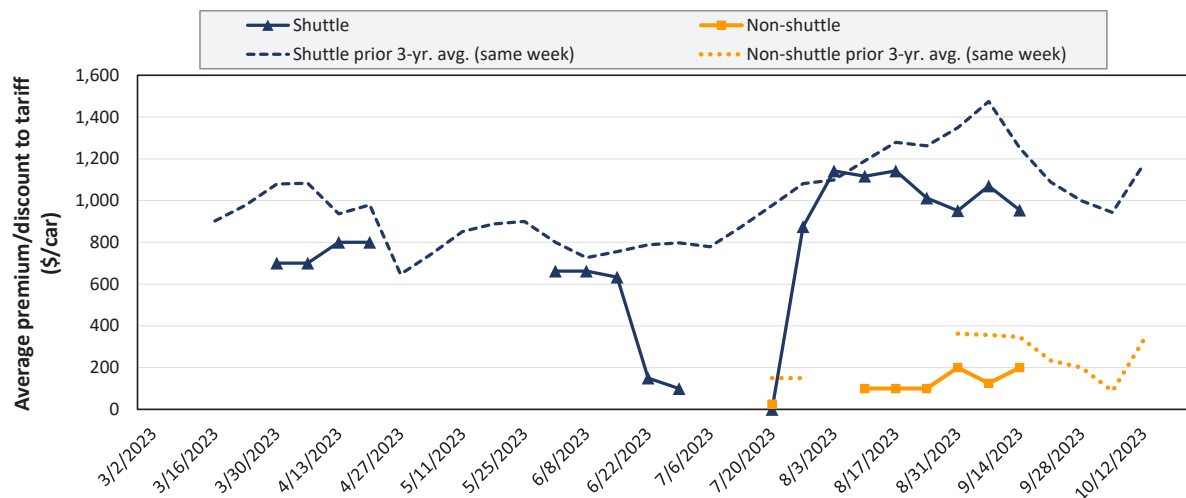
Average non-shuttle bids/offers rose \$563 this week, and are at the peak.

Average shuttle bids/offers rose \$558 this week and are at the peak.

9/14/2023	BNSF	UP
Non-Shuttle	\$1,000	\$400
Shuttle	\$833	\$267

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 October 2023



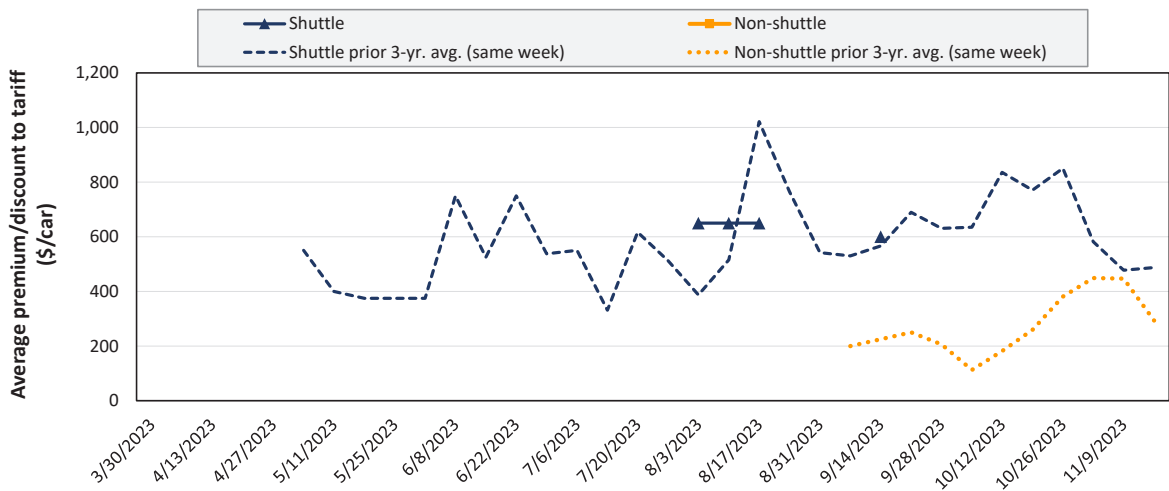
Average non-shuttle bids/offers rose \$75 this week, and are at the peak.

Average shuttle bids/offers fell \$116 this week and are \$188 below the peak.

9/14/2023	BNSF	UP
Non-Shuttle	n/a	\$200
Shuttle	\$1,025	\$883

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 November 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 \$50 below the peak.

9/14/2023	BNSF	UP
Non-Shuttle	n/a	n/a
Shuttle	\$600	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: 9/14/2023		Delivery period					
		Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24
Non-shuttle	BNSF-GF	1,000	n/a	n/a	n/a	n/a	n/a
	Change from last week	875	n/a	n/a	n/a	n/a	n/a
	Change from same week 2022	n/a	n/a	n/a	n/a	n/a	n/a
	UP-Pool	400	200	n/a	n/a	n/a	n/a
	Change from last week	250	75	n/a	n/a	n/a	n/a
	Change from same week 2022	n/a	0	n/a	n/a	n/a	n/a
Shuttle	BNSF-GF	833	1,025	600	n/a	n/a	n/a
	Change from last week	483	-153	n/a	n/a	n/a	n/a
	Change from same week 2022	n/a	-375	-50	n/a	n/a	n/a
	UP-Pool	267	883	n/a	n/a	n/a	n/a
	Change from last week	634	-80	n/a	n/a	n/a	n/a
	Change from same week 2022	n/a	-867	n/a	n/a	n/a	n/a
	CP-GF	n/a	500	n/a	n/a	n/a	n/a
	Change from last week	n/a	0	n/a	n/a	n/a	n/a
Change from same week 2022	n/a	-700	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.

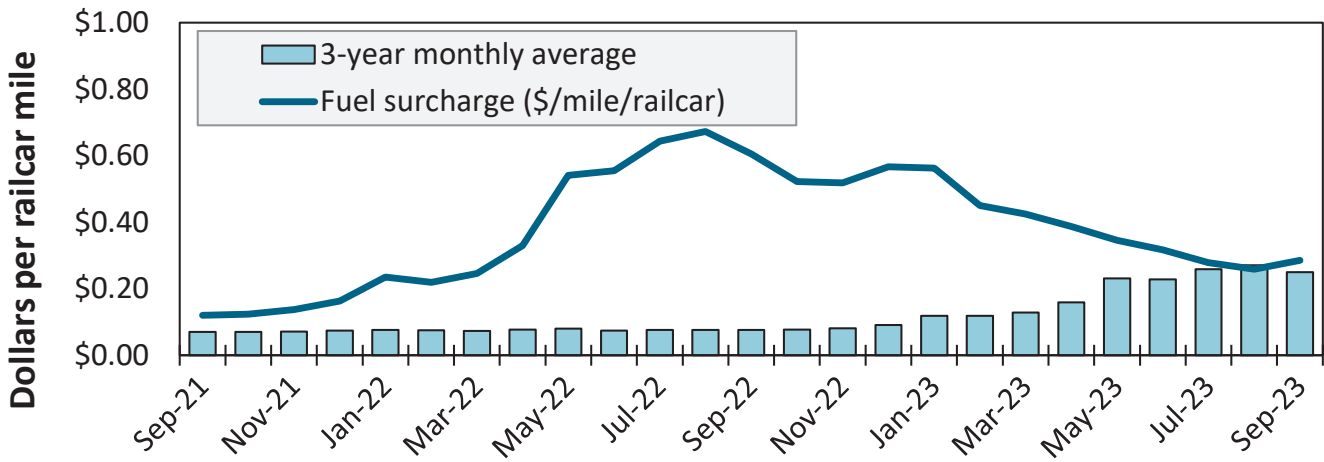
Source: BNSF Railway, Canadian National Railway, CSX Transportation, and Union Pacific Railroad.

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.

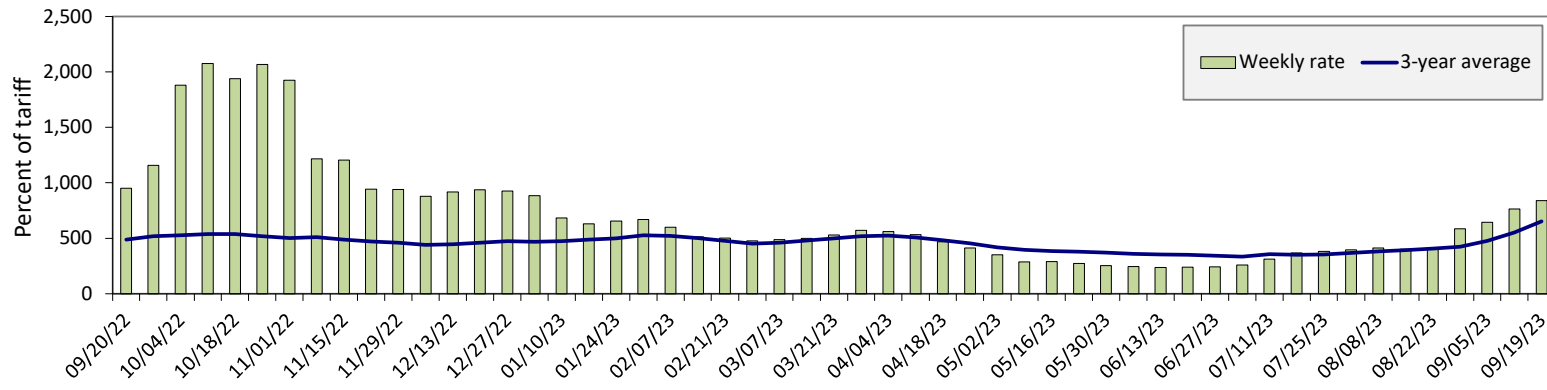
Figure 7. Railroad fuel surcharges, North American weighted average



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 19: 10 percent higher than the previous week; and 12 percent lower than last year; and 28 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	9/19/2023	825	853	839	961	969	969	1033
	9/12/2023	818	744	765	721	744	744	819
\$/ton	9/19/2023	51.07	45.38	38.93	38.34	45.45	39.15	32.44
	9/12/2023	50.63	39.58	35.50	28.77	34.89	30.06	25.72
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	-15	-11	-12	1	-1	-1	12
	3-year avg.	36	47	-	92	74	74	97
Rate	October	907	917	904	939	936	936	972
	December	-	-	538	468	531	531	433

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



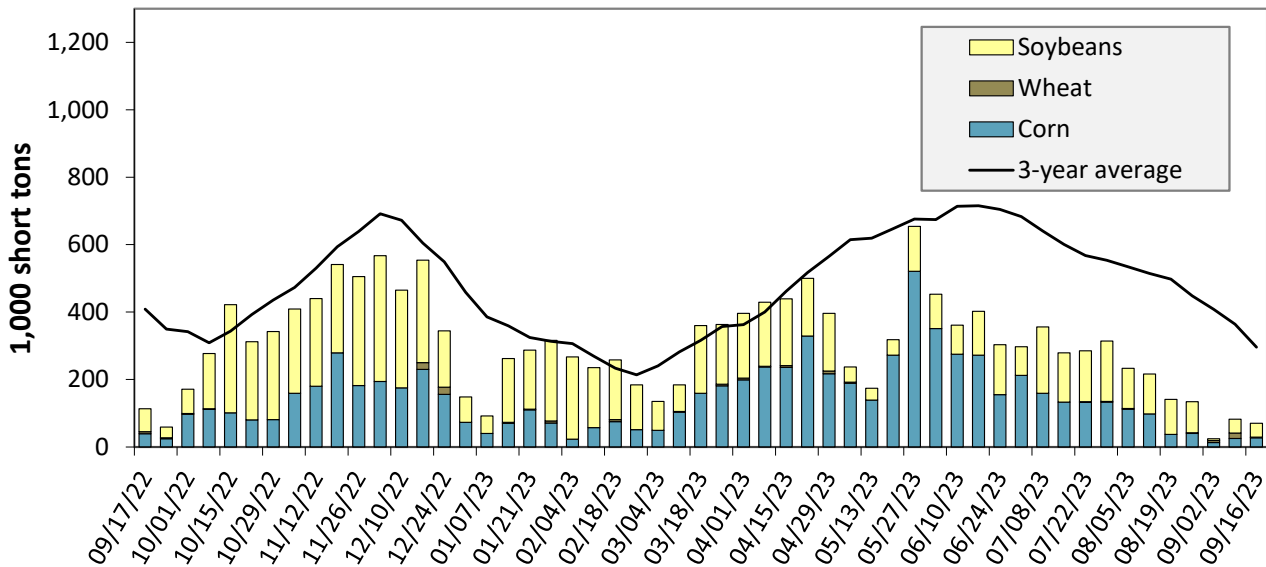
Calculating barge rate per ton:

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

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 16:
38 percent lower than last year and 76 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.

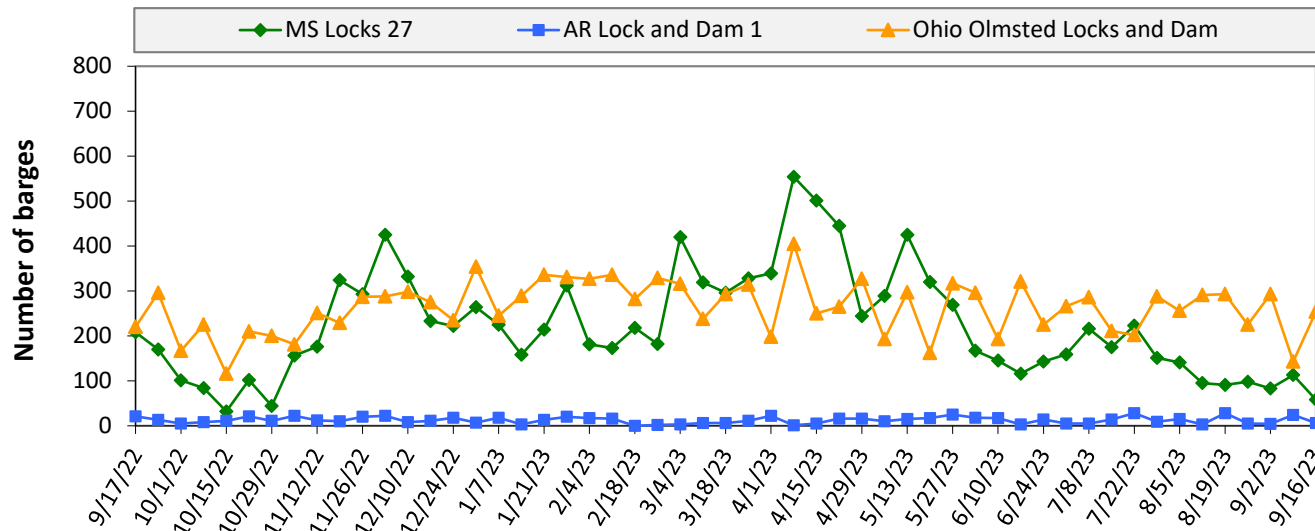
Table 10. Barged grain movements (1,000 tons)

For the week ending 09/16/2023	Corn	Wheat	Soybeans	Other	Total
Mississippi River (Rock Island, IL (L15))	14	0	17	0	32
Mississippi River (Winfield, MO (L25))	24	2	13	0	38
Mississippi River (Alton, IL (L26))	27	2	27	0	55
Mississippi River (Granite City, IL (L27))	27	2	41	0	69
Illinois River (La Grange)	2	0	8	0	9
Ohio River (Olmsted)	16	8	16	2	41
Arkansas River (L1)	1	1	17	0	20
Weekly total - 2023	44	11	74	2	130
Weekly total - 2022	82	30	94	3	210
2023 YTD	8,868	1,099	7,320	202	17,488
2022 YTD	13,191	1,461	8,777	188	23,618
2023 as % of 2022 YTD	67	75	83	107	74
Last 4 weeks as % of 2022	53	113	52	26	60
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.

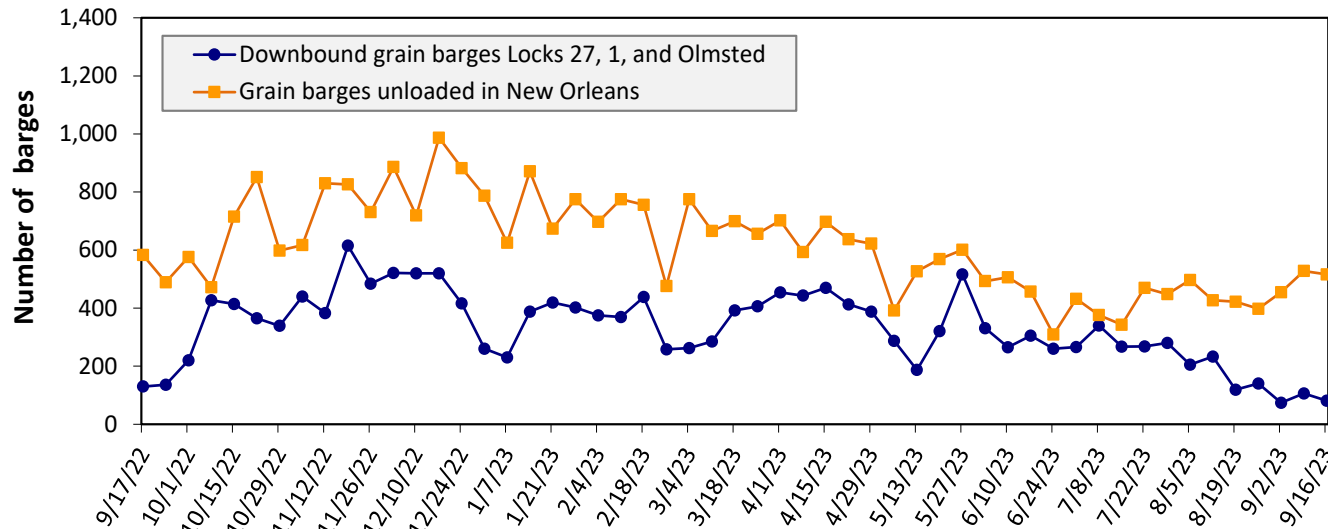
Figure 11. Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



For the week ending September 16: 318 barges transited the locks, 38 barges more than the previous week, and 26 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 16: 81 barges moved down river, 25 fewer than the previous week; 516 grain barges unloaded in the New Orleans Region, 2 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.

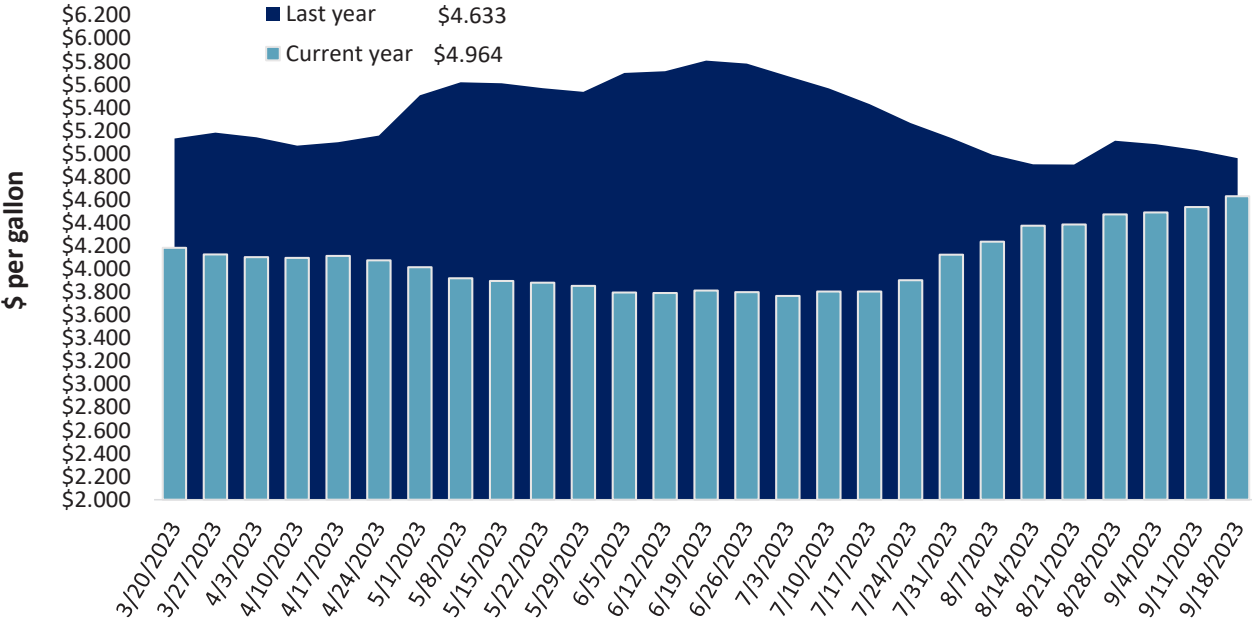
The weekly diesel price provides a proxy for trends in U.S. truck rates as diesel fuel is a significant expense for truck grain movements.

Table 11. Retail on-highway diesel prices, week ending 9/18/2023 (U.S. \$/gallon)

Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	4.537	0.058	-0.352
	New England	4.587	0.109	-0.424
	Central Atlantic	4.748	0.097	-0.345
	Lower Atlantic	4.456	0.039	-0.344
II	Midwest	4.492	0.065	-0.503
III	Gulf Coast	4.352	0.140	-0.338
IV	Rocky Mountain	4.864	0.054	-0.068
V	West Coast	5.695	0.160	0.083
	West Coast less California	5.260	0.107	0.116
	California	6.192	0.222	0.043
Total	United States	4.633	0.093	-0.331

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 18, the U.S. average diesel fuel price increased 9.3 cents from the previous week to \$4.633 per gallon, 33.1 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 9/07/2023	591	708	1,419	787	216	3,722	10,434	16,237	30,392
	This week year ago	1,234	697	1,157	1,211	94	4,394	11,838	24,859	41,090
	Last 4 wks. as % of same period 2022/23	51	103	125	60	161	84	52	36	46
Current shipped (cumulative) exports sales	2023/24 YTD	900	1,209	1,554	903	24	4,591	726	408	5,726
	2022/23 YTD	1,746	1,201	1,765	1,082	34	5,829	464	423	6,715
	YTD 2023/24 as % of 2022/23	52	101	88	83	71	79	157	97	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 9/07/2023	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	5,979	4,914	22	15,227
China	564	3,361	-83	12,616
Japan	1,178	909	30	10,273
Columbia	525	193	172	4,398
Korea	7	7	3	2,563
Top 5 importers	8,253	9,383	-12	45,077
Total U.S. corn export sales	11,160	12,301	-9	56,665
% of YTD current month's export projection	26%	20%		
Change from prior week	753	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 9/07/2023	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	6,668	13,173	-49	32,321
Mexico	1,660	1,564	6	4,912
Egypt	64	400	-84	2,670
Japan	469	531	-12	2,259
Indonesia	276	165	67	1,973
Top 5 importers	9,137	15,833	-42	44,133
Total U.S. soybean export sales	16,645	25,281	-34	56,656
% of YTD current month's export projection	31%	43%		
Change from prior week	704	843		
Top 5 importers' share of U.S. soybean export sales	55%	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 9/07/2023	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	1,551	1,873	-17	3,397
Philippines	1,154	1,363	-15	2,615
Japan	935	1,003	-7	2,281
China	273	475	-42	1,740
Korea	561	607	-8	1,426
Nigeria	132	487	-73	1,276
Taiwan	561	325	72	944
Thailand	216	243	-11	643
Columbia	155	323	-52	537
Indonesia	226	95	139	469
Top 10 importers	5,765	6,793	-15	15,327
Total U.S. wheat export sales	8,313	10,223	-19	20,411
% of YTD current month's export projection	44%	49%		
Change from prior week	438	217		
Top 10 importers' share of U.S. wheat export sales	69%	66%		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)

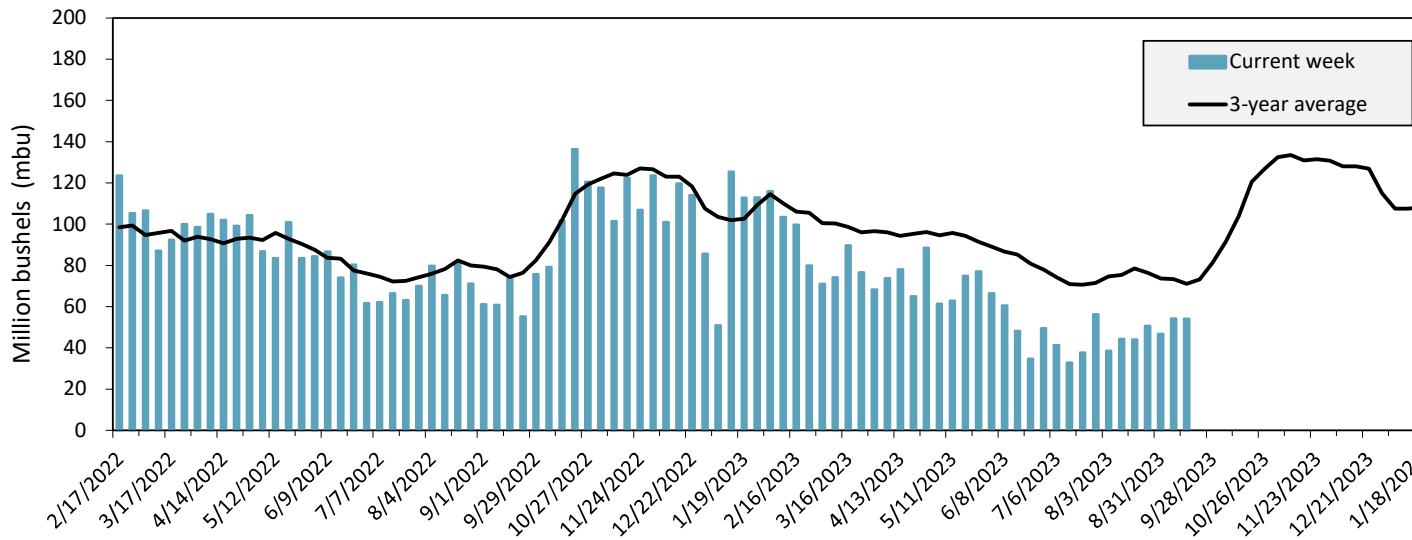
Port regions	Commodity	For the week ending 09/14/2023	Previous week*	Current week as % of previous	2023 YTD*	2022 YTD*	2023 YTD as % of 2022 YTD	Last 4-weeks as % of:		2022 total*
								Last year	Prior 3-yr. avg.	
Pacific Northwest	Wheat	201	249	81	7,319	7,279	101	67	68	9,836
	Corn	0	0	n/a	3,924	8,953	44	0	0	9,615
	Soybeans	0	0	n/a	3,533	5,212	68	0	0	14,178
	Total	201	249	81	14,776	21,444	69	47	42	33,629
Mississippi Gulf	Wheat	68	72	94	2,718	3,573	76	35	58	4,053
	Corn	436	425	102	17,488	25,877	68	123	136	30,781
	Soybeans	335	321	104	15,906	16,223	98	86	65	31,283
	Total	838	819	102	36,111	45,674	79	90	89	66,116
Texas Gulf	Wheat	0	30	0	1,367	2,487	55	11	13	3,421
	Corn	0	6	0	232	557	42	83	56	648
	Soybeans	0	0	n/a	52	2	n/a	n/a	1	685
	Total	0	36	0	1,652	3,045	54	17	14	4,754
Interior	Wheat	90	75	120	1,869	2,253	83	81	101	2,912
	Corn	195	183	107	6,528	6,407	102	116	114	8,961
	Soybeans	70	71	98	4,023	4,792	84	123	99	7,109
	Total	355	329	108	12,420	13,452	92	107	107	18,982
Great Lakes	Wheat	21	0	n/a	223	242	92	69	57	395
	Corn	0	0	n/a	23	141	16	0	0	158
	Soybeans	8	0	n/a	65	239	27	n/a	74	760
	Total	28	0	n/a	310	622	50	95	52	1,312
Atlantic	Wheat	8	2	342	94	131	72	153	109	169
	Corn	0	0	n/a	81	247	33	0	0	309
	Soybeans	1	1	n/a	1,253	1,602	78	55	42	2,867
	Total	8	3	286	1,428	1,980	72	52	50	3,345
U.S. total from ports*	Wheat	386	427	90	13,591	15,964	85	54	62	20,786
	Corn	631	614	103	28,275	42,182	67	104	104	50,471
	Soybeans	414	393	105	24,832	28,071	88	80	56	56,882
	Total	1,431	1,435	100	66,698	86,217	77	77	72	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.

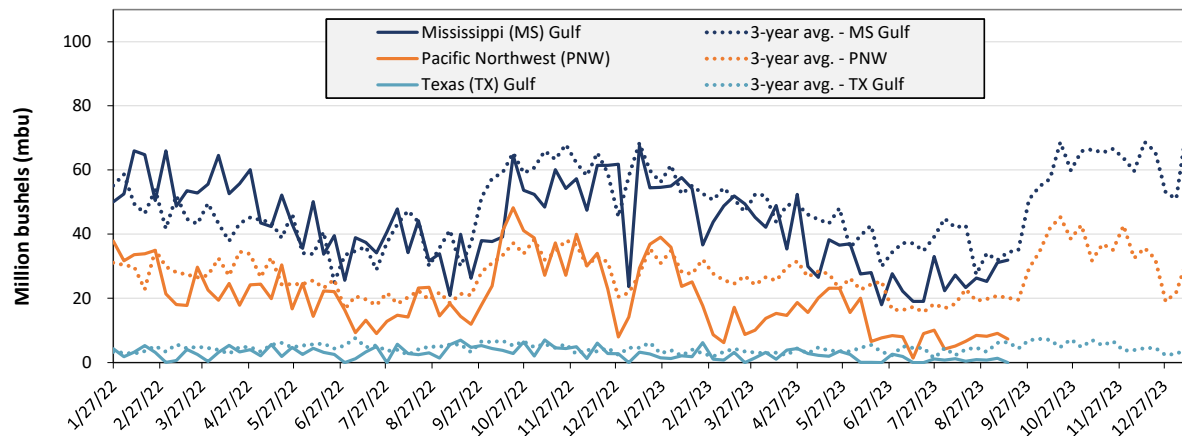
Figure 14. U.S. grain inspected for export (wheat, corn, and soybeans)



For the week ending September 14: 54.2 mbu of grain inspected, unchanged from the previous week, down 27 percent from the same week last year, and down 24 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 09/14/23 inspections (mbu):

MS Gulf: 31.9

PNW: 7.4

TX Gulf: 0

Percent change from	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last week	up 2	down 100	down 2	down 19
Last year (same week)	down 20	down 100	down 32	down 49
3-year average (4-week moving average)	no change	down 100	down 14	down 63

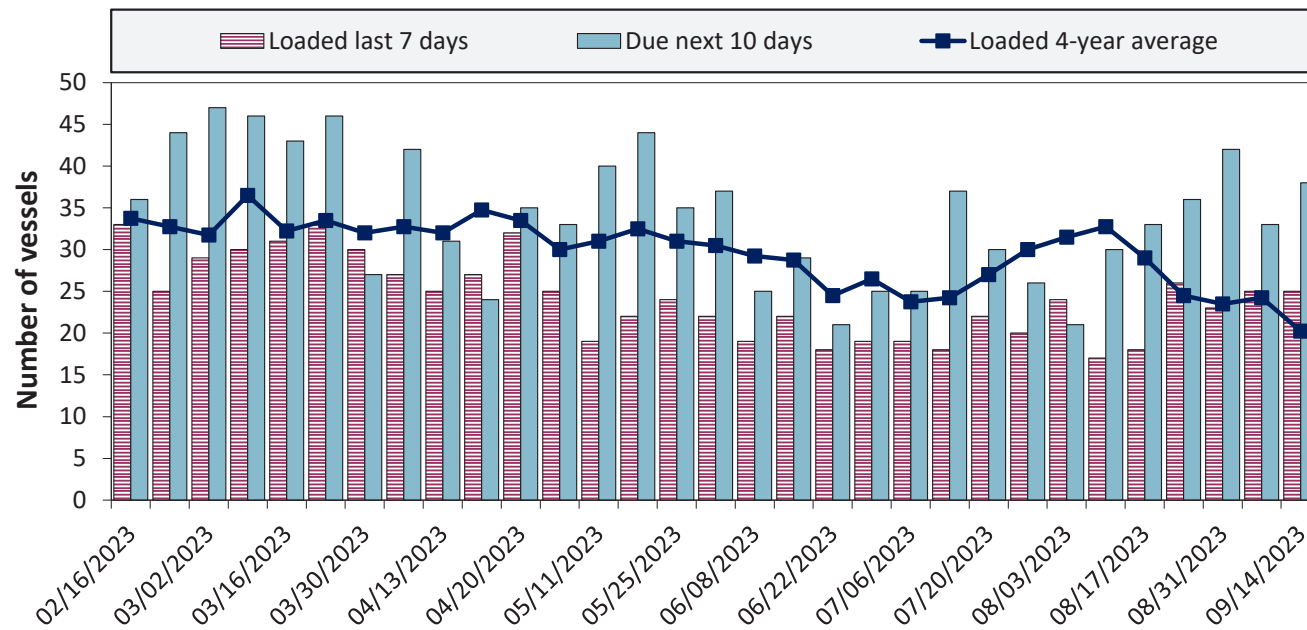
Source: USDA, Federal Grain Inspection Service.

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
9/14/2023	18	25	38	9
9/7/2023	22	25	33	7
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.

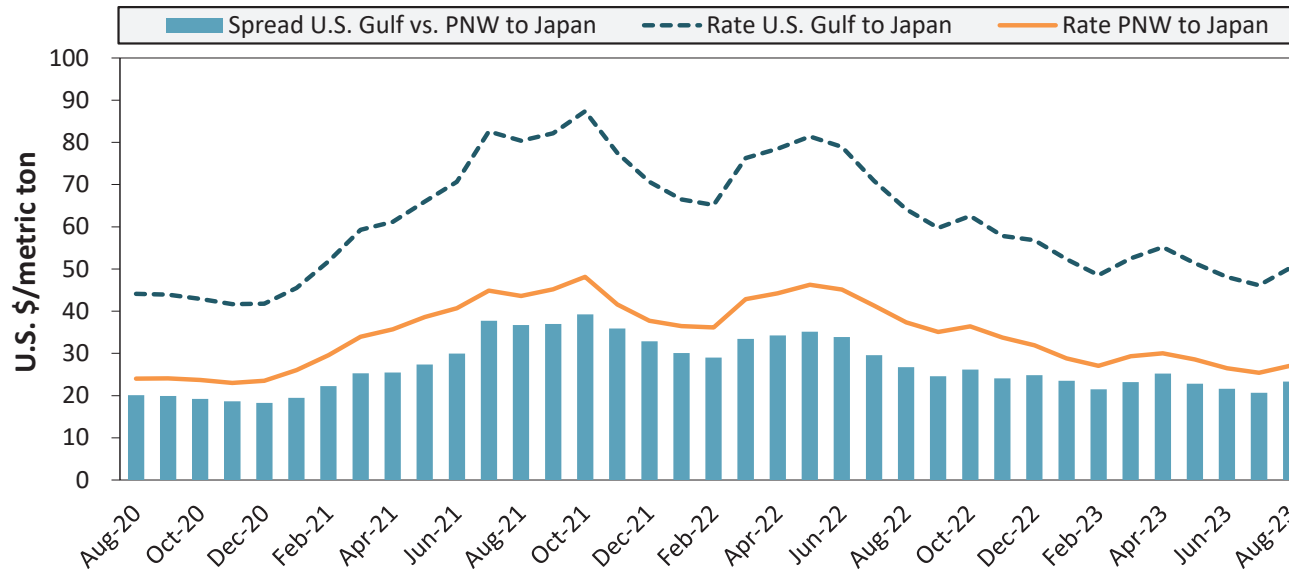
Figure 16. U.S. Gulf vessel loading activity



Week ending 09/14/23, number of vessels	Loaded	Due
Change from last year	14%	0%
Change from 4-year average	24%	-12%

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 09/16/2023

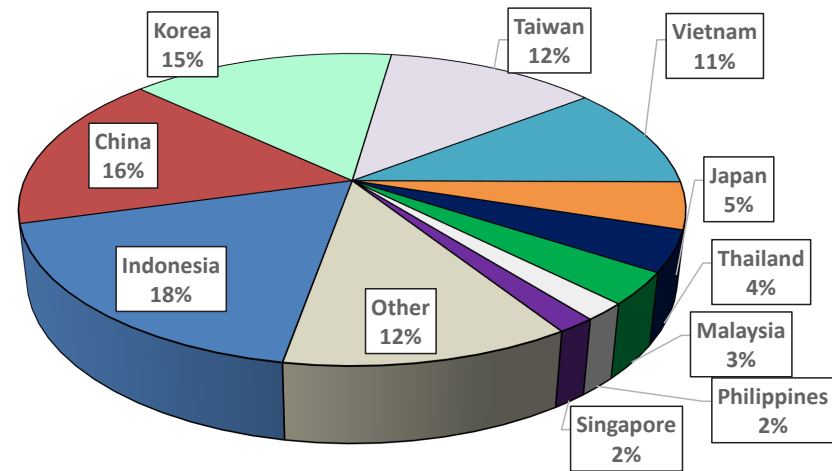
Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US\$/metric ton)
U.S. Gulf	Japan	Heavy grain	May 2, 2023	50,000	56.70
U.S. Gulf	Japan	Heavy grain	May 1, 2023	50,000	54.80
U.S. Gulf	China	Heavy grain	Oct 1/Nov 1, 2023	66,000	54.50
U.S. Gulf	China	Heavy grain	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	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.

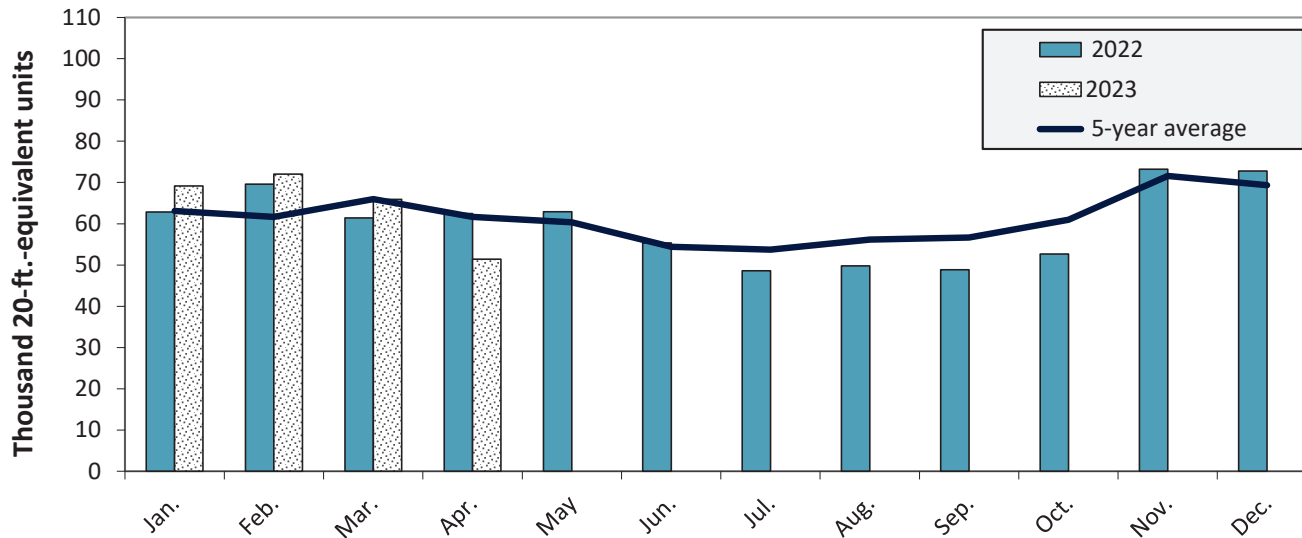
Figure 18. Top 10 destination markets for U.S. containerized grain exports, Jan-Apr 2023



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.

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