



Grain Transportation Report

A weekly publication of the Agricultural Marketing Service www.ams.usda.gov/GTR

Contact Us

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Contents

Article/ Calendar

Grain Transportation Indicators

Rail

Barge

Truck

Exports

Ocean

Brazil

Mexico

Grain Truck/Ocean Rate Advisory

Datasets

Specialists

Subscription Information

The next release is August 10, 2023

WEEKLY HIGHLIGHTS

Up 22.2 Cents, Diesel Price Tops \$4 per Gallon

According to Energy Information Administration (EIA) data, for the week ending July 31, the U.S. average **diesel fuel price** rose 22.2 cents from the previous week to \$4.127 per gallon. However, this price is still 101.1 cents below the same week last year. The most recent price rise is the largest since the 40.1 cent increase for the week ending March 14, 2022. This week's diesel price is also the highest since the \$4.128 per gallon price for the week ending March 27. The most recent increase reflects the strong global demand for oil, as well as the impact of multiple cuts in oil production. OPEC+ members cut 1.16 million barrels a day at the beginning of May, and in July, Saudi Arabia cut another 1 million barrels a day, which was extended into August and may be extended again. For the week ending July 31, prices rose in all 10 EIA regions, with the Midwest showing the largest week-to-week rise of 29.1 cents per gallon.

Kansas Makes \$10 Million Available for Short Line Railroad Improvement Projects

The Kansas Department of Transportation (KDOT) is now accepting applications for \$10 million of funding available through the State's Rail Service Improvement Program. Grant recipients are required to provide 30 percent of the total project cost. Qualified entities include any Class II or Class III railroad (i.e., a short line railroad), a Kansas port authority, or any owner or lessee of an industry track located on or adjacent to a short line railroad in Kansas. Kansas's Rail Service Improvement Program replaces the State's Short Line Rail Improvement Fund program (*Grain Transportation Report*, March 16, 2023, second highlight). Short lines provide rail access for rural grain producers and reduce overall reliance on trucks, resulting in lower emissions and less road congestion and maintenance. However, government funding is often needed for adequate resources to maintain short line tracks. Applications are currently being accepted on KDOT's website through September 1. Grant-recipient projects are expected to be announced in spring 2024.

FRA Seeks Input on Plan To Collect Train Length and Safety Data

The U.S. Department of Transportation's Federal Railroad Administration (FRA) has requested public comments on a proposal requiring Class I railroads to provide certain monthly data. FRA plans to collect data related to train lengths, tonnage by specified train length categories (over and under 7,500 feet), and a number of safety concerns—such as the number of emergency events, the number of communication event losses, and certain equipment malfunctions. This data collection proposal follows two FRA safety advisories issued earlier this year. One advisory notes "three significant incidents ... have occurred since 2022 involving trains with more than 200 cars, where train handling and train makeup is believed to have caused, or contributed to, the incidents." Grain shuttle trains typically comprise about 110 cars and are approximately 7,000 feet long, so most shuttle trains would not fall under FRA's longer (over 7,500 feet) category. However, grain cars can also be shipped as part of longer manifest trains—which move various types of railcars and commodities. Interested persons are invited to submit comments on or before September 19.

Ports of Indiana Seeks New Rail Operator at Its Mount Vernon Location

The Ports of Indiana announced a request for qualifications (RFQ) from railroads to provide intra-port switching and track maintenance services at the port's Mount Vernon location. Located on the Ohio River, 150 miles from the confluence with the Mississippi River, the 1,200-acre port is part of the largest inland port district in the Nation. The port is intermodal—offering logistical connections for rail, barge, and truck. Regarding rail, the port receives up to 50,000 railcars per year and provides switching services for approximately 10,000 carloads per year. The port has a direct interchange with Evansville Western Railway, a Class II regional railroad, with potential access to five Class I railroads. Approximately one-third of the port's annual cargo is agricultural, and port facilities include grain terminals, a liquid fertilizer terminal, and a terminal for ethanol and distillers' dried grains with solubles. Responses to the RFQ are due by August 31.

Snapshots by Sector

Export Sales

For the week ending July 20, **unshipped balances** of wheat, corn, and soybeans for marketing year (MY) 2022/23 totaled 9.76 million metric tons (mmt), down 4 percent from last week and down 43 percent from the same time last year. Net **corn export sales** for MY 2022/23 were 0.314, up 33 percent from last week. Net **soybean export sales** were 0.199 mmt, up 223 percent from last week. Net weekly **wheat export sales** for MY 2023/24, were 0.233 mmt, up 37 percent from last week.

Rail

U.S. Class I railroads originated 14,981 **grain carloads** during the week ending July 22. This was a 7-percent decrease from the previous week, 23 percent fewer than last year, and 23 percent fewer than the 3-year average.

Average August shuttle secondary railcar bids/offers (per car) were \$100 below tariff for the week ending July 27. This was \$22 less than last week and \$200 lower than this week last year. Average non-shuttle secondary railcar bids/offers per car were \$100 above tariff. This was \$38 more than last week and \$34 lower than this week last year.

Barge

For the week ending July 29, **barged grain movements** totaled 451,350 tons. This was 12 percent more than the previous week and 38 percent less than the same period last year.

For the week ending July 29, 280 grain barges **moved down river**—12 more than last week. There were 448 grain barges **unloaded** in the New Orleans region, 5 percent fewer than last week.

Ocear

For the week ending July 27, 20 oceangoing grain vessels were loaded in the Gulf—20 percent fewer than the same period last year. Within the next 10 days (starting July 28), 26 vessels were expected to be loaded—40 percent fewer than the same period last year.

As of July 27, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$45.00. This was 3 percent less than the previous week. The rate from the Pacific Northwest to Japan was \$25.00 per mt, 2 percent less than the previous week.

Feature Article/Calendar

Second-Quarter Grain Inspections Continue To Decline Year to Year

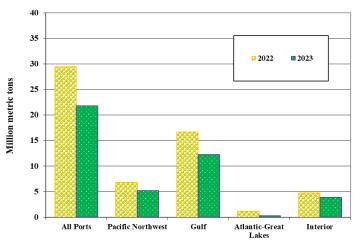
For second quarter 2023, inspections of wheat, corn, and soybeans for export from all major U.S. ports totaled 21.8 million metric tons (mmt), according to <u>USDA's Federal Grain Inspection Service (FGIS)</u>. The amount of grain inspected was down 28 percent from the 5-year average and down 26 percent from second quarter 2022 (year to year) (fig. 1). Inspections of grain were down in all major U.S. port regions. In July, USDA estimated exports for marketing year (MY) 2022/23 (ending August 31) will be down 33 percent for corn and down 8 percent for soybeans, from MY 2021/22. USDA estimated wheat exports for MY 2022/23 (ended May 31) were down 5 percent, from MY 2021/22.

Grain Inspections by Region

PNW. In second quarter 2023, Pacific Northwest (PNW) grain inspections totaled 5.3 mmt, down 22 percent year to year and down 43 percent from the 5-year average. Of total PNW inspections, corn inspections represented 58 percent; soybean inspections, 4 percent; and wheat inspections, 38 percent.

Gulf. At 12.3 mmt, grain inspections in the U.S. Gulf fell 26 percent year to year and fell 22 percent from the 5-year average. The year-to-year declines reflected drops in corn, soybean, and wheat inspections. Barge

Figure 1. Second-quarter grain inspections by port region



Source: USDA, Federal Grain Inspection Service.

grain movements on the Mississippi River to the U.S. Gulf fell 31 percent. Of total Gulf inspections, corn inspections represented 68 percent; soybean inspections, 21 percent; and wheat inspections, 11 percent.

Atlantic-Great Lakes. At 0.3 mmt, grain inspections in the Atlantic-Great Lakes were down 73 percent year to year and down 63 percent from the 5-year average. Of total Atlantic-Great Lakes inspections, corn inspections represented 18 percent; soybean inspections, 50 percent; and wheat inspections, 32 percent.

Interior. Interior grain inspections were 3.9 mmt, down 19 percent from year to year and down 15 percent from the 5-year average. Corn, soybean, and wheat inspections in the Interior weakened during second quarter 2023. Of total Interior inspections, corn inspections represented 60 percent; soybean inspections, 26 percent; and wheat inspections, 23 percent.

Inspections by Commodity

Corn. Second-quarter corn inspections were 13.8 mmt, down 21 percent year to year and down 22 percent from the 5-year average (fig. 2). The year-to-year decline in corn inspections showed up primarily in lower inspections for several destinations in Asia and Latin America.

PNW corn inspections were 3 mmt, down 32 percent year to year and down 40 percent from the 5-year average. At 8.4 mmt, U.S. Gulf inspections of corn were down 19 percent year to year and down 17 percent from the 5-year average. Corn inspections in the Interior were 2.3 mmt, down 8 percent year to year and down 6 percent from the 5-year average. Finally, corn inspections in the Atlantic-Great Lakes fell sharply, to less than 75 percent of last year's total.

According to USDA's July <u>World Agricultural Supply and Demand Estimates (WASDE)</u>, corn exports in MY 2023/24 are projected to be 53.34 mmt. If realized, the projection would be a 27-percent increase from the estimated MY 2022/23 total. The July corn projection is unchanged from the June projection.

Soybeans. At 4 mmt, soybean inspections were down 47 percent year to year and down 38 percent from the 5-year average (fig. 2). The sharp drops in soybean inspections were due mainly to lower inspections of shipments to China, Mexico, and Egypt.

Second-quarter PNW soybean inspections were 0.212 mmt—down 62 percent year to year and 74 percent below the 5-year average. At 2.6 mmt, second-quarter U.S. Gulf soybean inspections were down 43 percent year to year and down 26 percent from the 5-year average. At 1 mmt, Interior soybean inspections were down 38 percent year to year and down 35 percent from the 5-year average.

According to the July *WASDE*, MY 2023/24 soybean exports are projected to be 50.35 mmt—down 7 percent from the estimated MY 2022/23 total. The July soybean projection was revised down 6 percent from the June projection.

Wheat. Second-quarter wheat inspections were 4 mmt—down 7 percent year to year and down 36 percent from the 5-year average (fig. 2). At 2 mmt, second-quarter PNW wheat inspections were up 16 percent year to year and down 40 percent from the 5-year average. Total U.S. Gulf wheat inspections were down 26 percent year to year and down 38 percent from the 5-year average.

Atlantic-Great Lakes wheat inspections hit a

Figure 2. Second-quarter grain inspections by grain type 45 ____Total ---Corn ---Soybeans Wheat 40 35 Million metric tons 30 25 20 15 10 5 2009 2011 2013 2015 2017 2019 Source: USDA, Federal Grain Inspection Service.

new record low at 0.102 mmt—down 10 percent from year to year. Inspections for wheat going to Italy from this region were significantly lower than the previous year. At 0.549 mmt, Interior wheat inspections were up 3 percent from the 5-year average and down 14 percent year to year, because of lower inspections for several destinations in Asia, as well as Mexico.

According to the July *WASDE*, MY 2023/24 wheat exports are projected to be 19.73 mmt—4 percent below the estimated MY 2022/2023 total. The July wheat projection is unchanged from the June projection.

Bernadette.Winston@usda.gov

Grain Transportation Indicators

Table 1 **Grain transport cost indicators**¹

	Truck	Ra	il	Barge	Ocean	
For the week ending		Non-Shuttle	Shuttle		Gulf	Pacific
08/02/23	277	326	244	219	201	177
07/26/23	262	324	245	212	208	181

¹Indicator: 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.

Table 2

Market Update: U.S. origins to export position price spreads (\$/bushel)

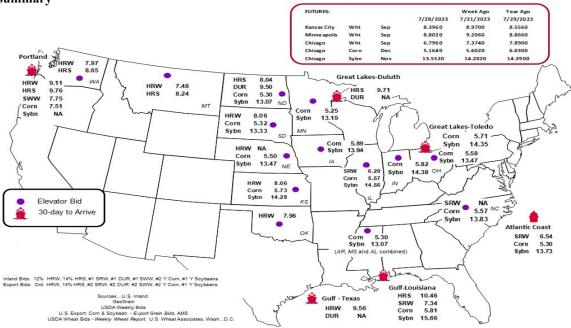
Commodity	Origin-destination	7/28/2023	7/21/2023
Corn	IL-Gulf	-0.24	-0.21
Corn	NE-Gulf	-0.31	-0.34
Soybean	IA-Gulf	-1.72	-1.50
HRW	KS-Gulf	-1.50	-1.43
HRS	ND-Portland	-1.72	-1.57

Note: nq = no quote; n/a = not available; HRW = hard red winter wheat; HRS = hard red spring wheat.

Source: USDA, Agricultural Marketing Service.

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.

Figure 1 Grain bid summary



Rail Transportation

Table 3

Class I rail carrier grain car bulletin (grain carloads originated)

For the week ending:	Ea	st	West		U.S. total	Central U	.S./Canada
7/22/2023	CSXT	NS	BNSF	BNSF UP		CPKC	CN
This week	1,322	2,431	6,629	4,599	14,981	4,607	4,663
This week last year	2,026	2,660	9,696	5,016	19,398	8,404	3,727
2023 YTD	53,649	78,469	257,986	154,512	544,616	270,783	130,923
2022 YTD	52,413	71,164	323,328	165,829	612,734	259,390	101,705
2023 YTD as % of 2022 YTD	102	110	80	93	89	104	129
Last 4 weeks as % of 2022	78	94	74	82	79	121	98
Last 4 weeks as % of 3-yr. avg.	82	101	69	81	78	102	107
Total 2022	93,428	130,580	570,232	296,945	1,091,185	538,276	214,051

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

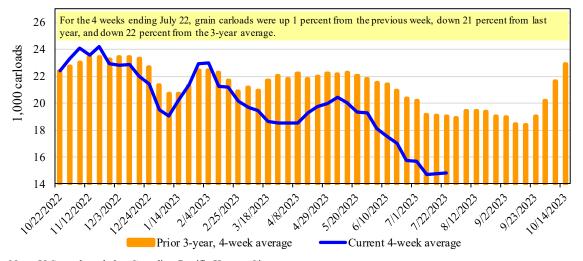
prior 3 years. The U.S. total column excludes CPKC. NS = Norfolk Southern; UP = Union Pacific; CN = Canadian National;

CPKC = Canadian Pacific Kansas City; YTD = year-to-date; avg. = average; yr. = year.

Source: Association of American Railroads.

Figure 2

Total weekly U.S. Class I railroad grain carloads



Note: U.S. total excludes Canadian Pacific Kansas City

Source: Association of American Railroads.

Table 4

Railcar auction offerings¹ (\$/car)²

Fo	For the week ending:		Delivery period									
7/27/2023		Aug-23	Aug-22	Sep-23	Sep-22	Oct-23	Oct-22	Nov-23	Nov-22			
IBNSF	COT grain units	0	no bids	no bids	0	no offer	163	no offer	117			
	COT grain single-car	0	0	0	159	40	236	2	254			
UP	GCAS/vouchers	no offer	n/a	no offer	n/a	no offer	n/a	n/a	n/a			

¹Auction offerings are for single-car and unit train shipments only.

 $Note: BNSF = BNSF \ Railway; COT = Certificate \ of \ Transportation; UP = Union \ Pacific \ Railroad; and \ GCAS = Grain \ Car \ Allocation \ System.$

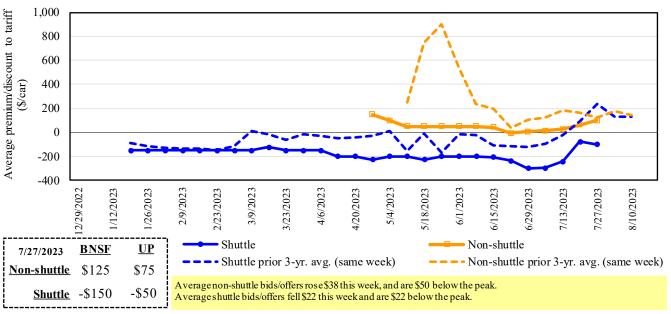
Minimum bids for UP GCAS/vouchers are \$10.

Source: USDA, Agricultural Marketing Service.

²Average premium/discount to tariff, last auction. n/a = not available.

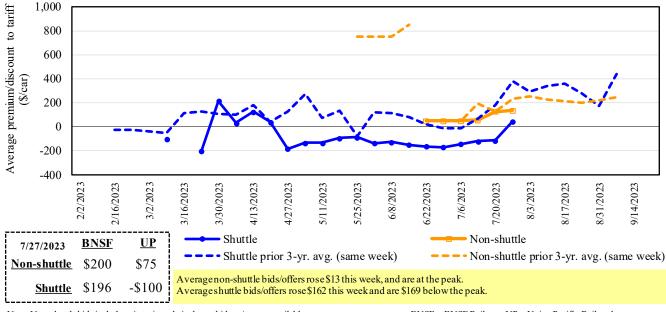
The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/ supply.

Figure 3
Secondary market bids/offers for railcars to be delivered in August 2023



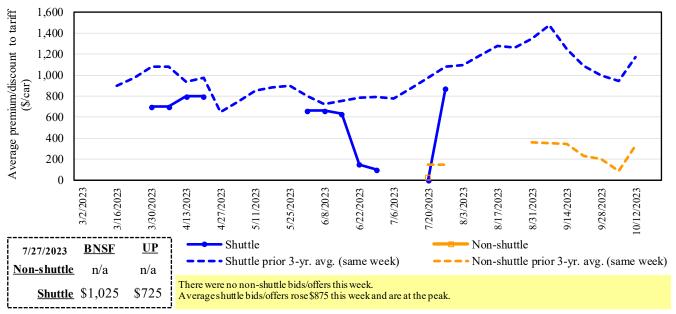
Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year; BNSF = BNSF Railway; UP = Union Pacific Railroad. Source: USDA, Agricultural Marketing Service.

Figure 4
Secondary market bids/offers for railcars to be delivered in September 2023



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.

Figure 5
Secondary market bids/offers for railcars to be delivered in October 2023



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.

Table 5
Weekly secondary railcar market (\$/car)¹

	For the week ending:			De	livery period		
	7/27/2023	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24
	BNSF-GF	125	200	n/a	n/a	n/a	n/a
le	Change from last week	25	0	n/a	n/a	n/a	n/a
hut	Change from same week 2022	108	0	n/a	n/a	n/a	n/a
Non-shuttle	UP-Pool	75	75	n/a	n/a	n/a	n/a
Z	Change from last week	50	25	n/a	n/a	n/a	n/a
	Change from same week 2022	-175	-325	n/a	n/a	n/a	n/a
	BNSF-GF	-150	196	1,025	n/a	n/a	n/a
	Change from last week	-69	224	1,100	n/a	n/a	n/a
	Change from same week 2022	63	-235	-750	n/a	n/a	n/a
e	UP-Pool	-50	-100	725	n/a	n/a	n/a
Shuttle	Change from last week	25	100	650	n/a	n/a	n/a
S	Change from same week 2022	-463	-650	-875	n/a	n/a	n/a
	CP-GF	0	0	200	n/a	n/a	n/a
	Change from last week	100	100	n/a	n/a	n/a	n/a
	Change from same week 2022	100	-50	-400	n/a	n/a	n/a

¹Average premium/discount to tariff, \$/car-last week.

Note: Bids listed are market indicators only and are not guaranteed prices. n/a = not available;

GF = guaranteed freight; Pool = guaranteed pool; BNSF = BNSF Railway; UP = Union Pacific Railroad; CP = Canadian Pacific Railway.

Data from The Malsam Co., Tradewest Brokerage Co.

Source: USDA, Agricultural Marketing Service.

Table 6

Tariff rail rates for unit and shuttle train shipments¹

			Tariff	Fuel	Tariff plus surch		Percent change
August 2023	Origin region ³	Destination region ³	rate/car	per car	metric ton	bus he l ²	Y/Y ⁴
Unit train							
Wheat	Wichita, KS	St. Louis, MO	\$4,095	\$177	\$42.42	\$1.15	1
	Grand Forks, ND	Duluth-Superior, MN	\$4,008	\$42	\$40.22	\$1.09	0
	Wichita, KS	Los Angeles, CA	\$7,340	\$214	\$75.02	\$2.04	-11
	Wichita, KS	New Orleans, LA	\$4,825	\$312	\$51.01	\$1.39	-2
	Sioux Falls, SD	Galveston-Houston, TX	\$7,111	\$176	\$72.36	\$1.97	-9
	Colby, KS	Galveston-Houston, TX	\$5,075	\$341	\$53.79	\$1.46	-3
	Amarillo, TX	Los Angeles, CA	\$5,121	\$475	\$55.57	\$1.51	-9
Corn	Champaign-Urbana, IL	New Orleans, LA	\$4,000	\$352	\$43.22	\$1.10	-8
	Toledo, OH	Raleigh, NC	\$8,551	\$396	\$88.84	\$2.26	0
	Des Moines, IA	Davenport, IA	\$2,655	\$75	\$27.11	\$0.69	3
	Indianapolis, IN	Atlanta, GA	\$6,593	\$297	\$68.42	\$1.74	1
	Indianapolis, IN	Knoxville, TN	\$5,564	\$192	\$57.16	\$1.45	2
	Des Moines, IA	Little Rock, AR	\$4,250	\$219	\$44.38	\$1.13	0
	Des Moines, IA	Los Angeles, CA	\$6,130	\$638	\$67.21	\$1.71	-6
Soybeans	Minneapolis, MN	New Orleans, LA	\$3,472	\$513	\$39.57	\$1.08	-29
	Toledo, OH	Huntsville, AL	\$7,037	\$282	\$72.68	\$1.98	0
	Indianapolis, IN	Raleigh, NC	\$7,843	\$401	\$81.87	\$2.23	0
	Indianapolis, IN	Huntsville, AL	\$5,689	\$190	\$58.39	\$1.59	2
	Champaign-Urbana, IL	New Orleans, LA	\$4,865	\$352	\$51.81	\$1.41	-4
Shuttle train							
Wheat	Great Falls, MT	Portland, OR	\$4,543	\$123	\$46.34	\$1.26	-6
	Wichita, KS	Galveston-Houston, TX	\$4,611	\$96	\$46.74	\$1.27	-7
	Chicago, IL	Albany, NY	\$7,090	\$374	\$74.12	\$2.02	0
	Grand Forks, ND	Portland, OR	\$6,201	\$213	\$63.69	\$1.73	-8
	Grand Forks, ND	Galveston-Houston, TX	\$5,549	\$222	\$57.31	\$1.56	-10
	Colby, KS	Portland, OR	\$5,923	\$560	\$64.38	\$1.75	-9
Corn	Minneapolis, MN	Portland, OR	\$5,660	\$259	\$58.78	\$1.49	-10
	Sioux Falls, SD	Tacoma, WA	\$5,620	\$237	\$58.17	\$1.48	-9
	Champaign-Urbana, IL	New Orleans, LA	\$4,170	\$352	\$44.91	\$1.14	-3
	Lincoln, NE	Galveston-Houston, TX	\$4,360	\$138	\$44.67	\$1.13	-4
	Des Moines, IA	Amarillo, TX	\$4,670	\$275	\$49.11	\$1.25	-1
	Minneapolis, MN	Tacoma, WA	\$5,660	\$257	\$58.76	\$1.49	-9
	Council Bluffs, IA	Stockton, CA	\$5,580	\$266	\$58.05	\$1.47	-10
Soybeans	Sioux Falls, SD	Tacoma, WA	\$6,350	\$237	\$65.42	\$1.78	-7
	Minneapolis, MN	Portland, OR	\$6,400	\$259	\$66.13	\$1.80	-8
	Fargo, ND	Tacoma, WA	\$6,250	\$211	\$64.16	\$1.75	-6
	Council Bluffs, IA	New Orleans, LA	\$5,095	\$406	\$54.63	\$1.49	-4
	Toledo, OH	Huntsville, AL	\$5,277	\$282	\$55.20	\$1.50	1
	Grand Island, NE	Portland, OR	\$5,730	\$573	\$62.59	\$1.70	-3

¹A unit train refers to shipments of at least 25 cars. Shuttle train rates are generally available for qualified shipments of

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

⁷⁵⁻¹²⁰ cars that meet railroad efficiency requirements.

²Approximate load per car = 111 short tons (100.7 metric tons): com 56 pounds per bushel (lbs/bu), wheat and soybeans 60 lbs/bu.

³Regional economic areas are defined by the Bureau of Economic Analysis (BEA).

⁴Percentage change year over year (Y/Y) calculated using tariff rate plus fuel surcharge.

Table 7
Tariff rail rates for U.S. bulk grain shipments to Mexico

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

¹Rates are based upon published tariff rates for high-capacity shuttle trains. Shuttle trains are available for qualified

As we incorporate the change, Table 7 updates will be delayed.

Sources: BNSF Railway, Union Pacific Railroad, Kansas City Southern.

Figure 6

Railroad fuel surcharges, North American weighted average¹



¹ Weighted by each Class I railroad's proportion of grain traffic for the prior year.

Sources: BNSF Railway, Canadian National Railway, CSX Transportation, Canadian Pacific Railway, Union Pacific Railroad, Kansas City Southern Railway, Norfolk Southern Corporation.

shipments of 75-110 cars that meet railroad efficiency requirements.

²Fuel surcharge adjusted to reflect the change in Ferrocarril Mexicano, S.A. de C.V railroad fuel surcharge policy as of 10/01/2009.

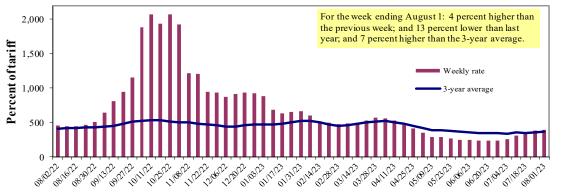
³Approximate load per car = 97.87 metric tons: Com & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

⁴Percentage change calculated using tariff rate plus fuel surchage; Y/Y = year over year.

⁵ As of January 1, 2022, both BNSF and Union Pacific changed their billing and reporting of rates to Mexico.

Barge Transportation

Figure 7
Illinois River barge freight rate^{1,2}



¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-week moving average of the 3-year average. Source: USDA, Agricultural Marketing Service.

Table 8

Weekly barge freight rates: Southbound only

***************************************	burge mergine i	mest som	instant only					
		Twin	Mid-	Lower Illinois			Lower	Cairo-
		Cities	Mississippi	River	St. Louis	Cincinnati	Ohio	Memphis
Rate ¹	8/1/2023	459	404	395	354	338	338	336
	7/25/2023	422	397	381	340	317	317	317
\$/ton	8/1/2023	28.41	21.49	18.33	14.12	15.85	13.66	10.55
	7/25/2023	26.12	21.12	17.68	13.57	14.87	12.81	9.95
Curren	t week % chang	e from the s	ame week:					
	Last year	-22	-19	-13	-12	-28	-28	-13
	3-year avg. ²	1	6	-	30	8	8	29
Rate ¹	September	664	659	658	650	661	661	706
	November	643	591	584	525	567	567	500

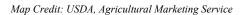
¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-week moving average; ton = 2,000 pounds; "-" data not available. Source: USDA, Agricultural Marketing Service.

Figure 8 Benchmark tariff rates

Calculating barge rate per ton:

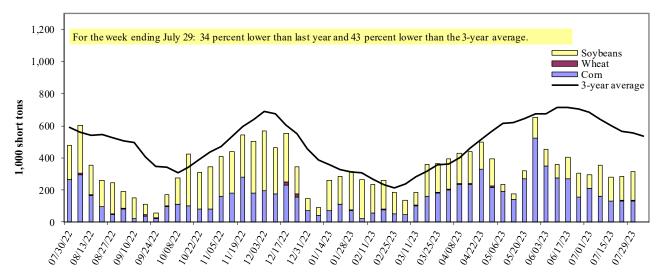
(Rate * 1976 tariff benchmark rate per ton)/100

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









¹ The 3-year average is a 4-week moving 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.

Table 9 **Barged grain movements (1,000 tons)**

For the week ending 07/29/2023	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	78	0	131	0	209
Winfield, MO (L25)	84	2	185	5	276
Alton, IL (L26)	130	2	207	5	344
Granite City, IL (L27)	133	2	179	5	319
Illinois River (La Grange)	32	0	27	0	59
Ohio River (Olmsted)	46	24	27	9	105
Arkansas River (L1)	0	26	1	0	27
Weekly total - 2023	179	52	208	14	451
Weekly total - 2022	388	71	272	0	731
2023 YTD ¹	8,380	827	6,589	191	15,987
2022 YTD ¹	12,197	1,139	7,414	171	20,921
2023 as % of 2022 YTD	69	73	89	112	76
Last 4 weeks as % of 2022 ²	49	81	83	145	65
Total 2022	16,437	1,594	14,464	232	32,727

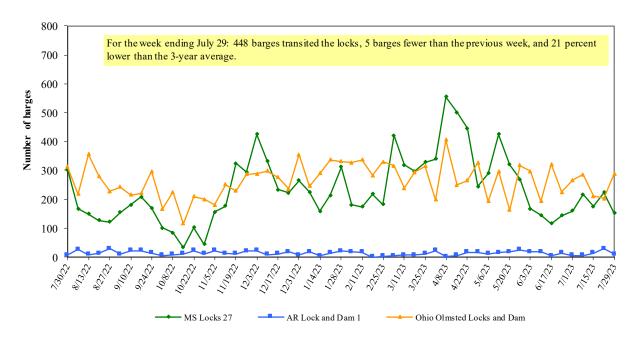
¹ Weekly total, YTD (year-to-date), and calendar year total include MI/27, OH/Olmsted, and AR/1; Other refers to oats, barley, sorghum, and rye. Total may not add exactly due to rounding.

Note: L (as in "L15") refers to a lock, locks, or locks 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.

² As a percent of same period in 2022.

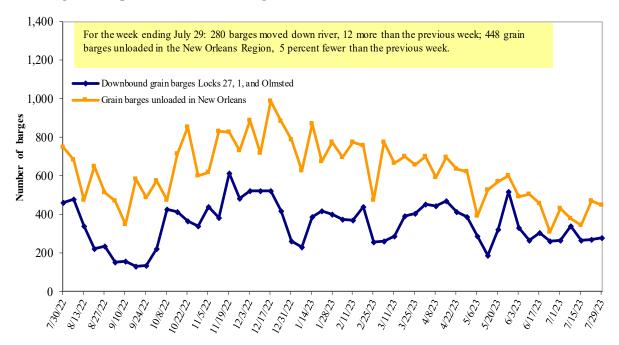
Figure 10
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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 11 **Grain barges for export in New Orleans region**



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.

Truck Transportation

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.

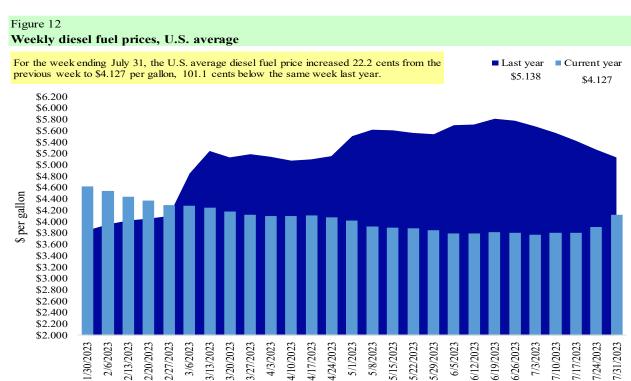
Table 10 Retail on-highway diesel prices, week ending 7/31/2023 (U.S. \$/gallon)

8	, ,		Change	e from
Region	Location	Price	Week ago	Year ago
I	East Coast	4.153	0.182	-1.028
	New England	4.161	0.061	-1.302
	Central Atlantic	4.291	0.143	-1.227
	Lower Atlantic	4.101	0.208	-0.926
II	Midwest	4.105	0.291	-1.003
III	Gulf Coast	3.831	0.191	-0.970
IV	Rocky Mountain	4.127	0.153	-1.054
V	West Coast	4.753	0.198	-1.050
	West Coast less California	4.401	0.184	-0.998
	California	5.158	0.214	-1.108
Total	United States	4.127	0.222	-1.011

¹Diesel fuel prices include all taxes. Prices represent an average of all types of diesel fuel.

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.



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, Retail On-Highway Diesel Prices.

Grain Exports

Table 11
U.S. export balances and cumulative exports (1,000 metric tons)

C.S. Caport balances and cumulative exports (1,000 metric tons)										
			Wh	eat			Corn	Soybeans	Total	
For the week ending	HRW	SRW	HRS	SWW	DUR	All wheat				
Export balances ¹										
7/20/2023	657	908	1,155	555	71	3,346	3,812	2,605	9,763	
This week year ago	1,594	1,154	1,571	1,349	124	5,792	5,209	6,170	17,171	
Cumulative exports-marketing year ²										
2022/23 YTD	426	557	618	458	17	2,076	36,247	50,159	88,482	
2021/22 YTD	727	398	695	367	18	2,205	55,392	53,369	110,965	
YTD 2022/23 as % of 2021/22	59	140	89	125	97	94	65	94	80	
Last 4 wks. as % of same period 2021/22	41	88	76	44	53	60	76	46	60	
Total 2021/22	7,172	2,786	5,254	3,261	196	18,669	59,764	57,189	135,622	
Total 2020/21	8,422	1,790	7,500	6,438	656	24,807	66,958	60,571	152,335	

¹ Current unshipped (outstanding) export sales to date.

Note: marketing year: wheat = 6/01-5/31, corn and soybeans = 9/01-8/31. YTD = year-to-date; wks. = weeks; HRW= hard red winter;

SRW = soft red winter; HRS= hard red spring; SWW= soft white wheat; DUR= durum.

Source: USDA, Foreign Agricultural Service.

Table 12 **Top 5 importers**¹ **of U.S. corn**

For the week ending 7/20/2023	Total c	ommitments ²		% change	Exports ³
	2023/24	2022/23	2021/22	current MY	3-yr. avg.
	next MY	current MY	last MY	from last MY	2019-21
		1,000 mt -			-1,000 mt -
Mexico	2,961	15,214	16,701	(9)	15,227
China	272	7,581	14,716	(48)	12,616
Japan	746	6,688	10,002	(33)	10,273
Columbia	0	2,305	4,374	(47)	4,398
Korea	0	821	1,476	(44)	2,563
Top 5 importers	3,979	32,610	47,268	(31)	45,077
Total U.S. corn export sales	4,866	40,060	60,601	(34)	56,665
% of YTD current month's export projection	9%	95%	96%		
Change from prior week ²	336	314	150		
Top 5 importers' share of U.S. corn export sales	82%	81%	78%		80%
USDA forecast July 2023	53,435	41,985	62,901	(33)	
Corn use for ethanol USDA forecast, July 2023	134,620	132,715	135,281	(2)	

 $^{^{1}}Based \ on \ USDA, Foreign \ Agricultural \ Service \ (FAS) \ marketing \ year \ ranking \ reports \ for \ 2021/22; \ marketing \ year \ (MY) = Sep \ 1 - Aug \ 31.$

Note: A red number in parentheses indicates a negative number; mt = metric ton.

Source: USDA, Foreign Agricultural Service.

² Shipped export sales to date.

²Cumulative exports (shipped) + outstanding sales (unshipped), 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.

³FAS marketing year ranking reports (carry over plus accumulated export); yr. = year; avg. = average; YTD = year to date.

Table 13

Top 5 importers¹ of U.S. soybeans

For the week ending 7/20/2023	Total commitments ²			% change	Exports ³
	2023/24	2022/23	2021/22	current MY	3-yr. avg.
	next MY	current MY	last MY	from last MY	2019-21
		1,000 mt -			-1,000 mt -
China	2,140	31,216	30,476	2	27,283
Mexico	954	4,751	5,412	(12)	4,929
Egypt	63	1,145	4,141	(72)	3,553
Japan	178	2,380	2,488	(4)	2,266
Indonesia	56	1,675	1,742	(4)	2,116
Top 5 importers	3,391	41,167	44,258	(7)	40,147
Total U.S. soybean export sales	5,459	52,765	59,539	(11)	54,231
% of projected exports	11%	98%	102%		
change from prior week ²	545	199	(59)		
Top 5 importers' share of U.S. soybean export sales	62%	78%	74%		74%
USDA forecast, July 2023	50,409	53,951	58,638	(8)	

¹Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2021/22; marketing year (MY) = Sep 1 - Aug 31.

Note: A red number in parentheses indicates a negative number; mt = metric ton.

Source: USDA, Foreign Agricultural Service.

Table 14

Top 10 importers¹ of all U.S. wheat

For the week ending 7/20/2023	Total commitments ²		% change	Exports ³
	2023/24 current MY	2022/23 last MY	current MY from last MY	3-yr. avg. 2020-22
	1,000 mt -			-1,000 mt -
Mexico	1,020	1,321	(23)	3,397
Philippines	720	1,174	(39)	2,615
Japan	668	742	(10)	2,281
China	18	273	(93)	1,740
Korea	405	539	(25)	1,426
Nigeria	128	393	(67)	1,276
Taiwan	342	216	58	944
Thailand	105	182	(42)	643
Colombia	85	285	(70)	537
Indonesia	73	11	567	469
Top 10 importers	3,564	5,136	(31)	15,327
Total U.S. wheat export sales	5,421	7,997	(32)	20,411
% of projected exports	27%	39%		
change from prior week ²	233	412		
Top 10 importers' share of U.S. wheat export sales	66%	64%		75%
USDA forecast, June 2023	19,755	20,681	(4)	

¹ Based on USDA, Foreign Agricultural Service(FAS) marketing year ranking reports for 2022/23; Marketing year (MY) = Jun 1 - May 31.

Note: A red number in parentheses indicates a negative number.

Source: USDA, Foreign Agricultural Service.

²Cumulative exports (shipped) + outstanding sales (unshipped), 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.

³FAS marketing year ranking reports (carry over plus accumulated export); yr. = year; avg. = average; YTD = year to date.

² Cumulative exports (shipped) + outstanding sales (unshipped), FAS weekly export sales report, or export sales query. The total commitments change (net sales) from prior week could include revisions from the previous week's outstanding and/or accumulated sales.

³ FAS marketing year ranking reports (carry over plus accumulated export); yr. = year; avg. = average.

Table 15

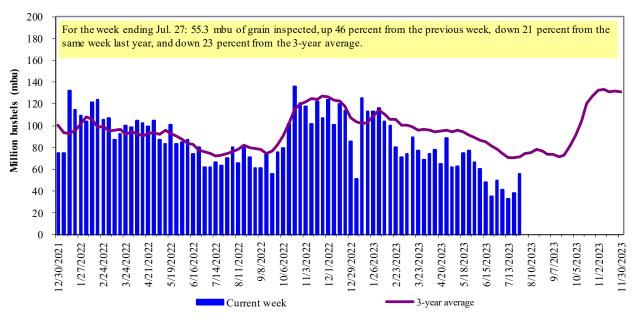
Grain inspections for export by U.S. part region (1,000 metric tans)

	For the week ending	Previous	Current week			2023 YTD as	Last 4-we	eeks as % of:	
Port regions	07/27/23	week*	as % of previous	2023 YTD*	2022 YTD*	% of 2022 YTD	Last year	Prior 3-yr. avg.	2022 total*
Pacific Northwest									
Wheat	273	233	117	5,981	5,119	117	160	92	9,836
Corn	0	0	n/a	3,923	8,520	46	0	0	9,615
Soybeans	0	12	0	3,533	4,495	79	n/a	271	14,178
Total	274	245	112	13,438	18,134	74	67	44	33,629
Mississippi Gulf									
Wheat	286	106	269	2,166	2,471	88	181	172	4,053
Corn	307	209	147	15,081	23,319	65	42	40	30,781
Soybeans	274	188	146	13,917	13,188	106	59	70	31,283
Total	867	503	172	31,164	38,978	80	62	64	66,116
Texas Gulf									
Wheat	13	0	n/a	1,303	1,830	71	25	11	3,421
Corn	15	0	n/a	159	463	34	43	66	648
Soybeans	0	0	n/a	52	2	n/a	n/a	n/a	685
Total	28	0	n/a	1,514	2,294	66	31	19	4,754
Interior									
Wheat	34	34	101	1,388	1,723	81	58	62	2,912
Corn	191	115	166	5,353	5,429	99	103	93	8,961
Soybeans	68	98	70	3,420	4,168	82	63	76	7,109
Total	294	247	119	10,161	11,321	90	80	82	18,982
Great Lakes									
Wheat	0	0	n/a	171	132	130	110	58	395
Corn	0	0	n/a	23	125	18	0	0	158
Soybeans	0	0	n/a	31	239	13	0	0	760
Total	0	0	n/a	224	496	45	35	26	1,312
Atlantic									
Wheat	2	6	34	73	73	100	40	84	169
Corn	0	0	n/a	78	217	36	0	0	309
Soybeans	4	6	69	1,220	1,558	78	64	85	2,867
Total	6	12	50	1,371	1,848	74	33	65	3,345
U.S. total from ports	*								
Wheat	608	380	160	11,082	11,348	98	126	90	20,786
Corn	514	324	159	24,617	38,072	65	44	40	50,471
Soybeans	347	303	114	22,173	23,650	94	60	71	56,882
Total	1,469	1,007	146	57,872	73,070	79	65	59	128,139

^{*}Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

 $Source: USDA, Federal\ Grain\ Inspection\ Service;\ YTD=\ year-to-date;\ n/a=not\ applicable\ or\ no\ change.$

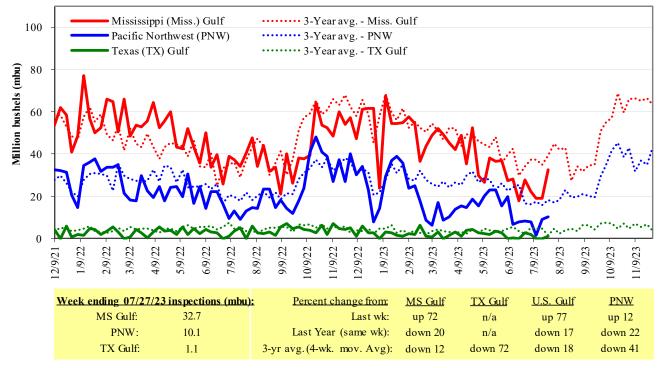
Figure 13
U.S. grain inspected for export (wheat, corn, and soybeans)



Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 14
U.S. Grain inspections: U.S. Gulf and PNW¹ (wheat, corn, and soybeans)



Source: USDA, Federal Grain Inspection Service.

Ocean Transportation

Table 16

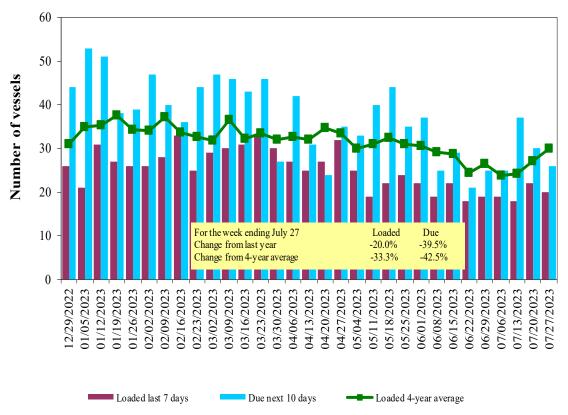
Weekly port region grain ocean vessel activity (number of vessels)

<u> </u>		•	,	Pacific
		Gulf		Northwest
		Loaded	Due next	Tiorenwest
Date	In port	7-days	10-days	In port
7/27/2023	29	20	26	1
7/20/2023	29	22	30	5
2022 range	(1461)	(1839)	(2862)	(523)
2022 average	30	28	44	13

Note: The data is voluntarily collected and may not be complete.

Source: USDA, Agricultural Marketing Service.

Figure 15
U.S. Gulf⁴ vessel loading activity



¹U.S. Gulf includes Mississippi, Texas, and East Gulf. Source: USDA, Agricultural Marketing Service.

Figure 16

Grain vessel rates, U.S. to Japan



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

Table 17

Ocean freight rates for selected shipments, week ending 07/29/2023

Export	Import	Grain	Loading	Volume loads	Freight rate
region	region	types	date	(metric tons)	(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	Japan	Heavy grain	Nov 1/10, 2022	50,000	79.25
U.S. Gulf	S. China	Corn	Aug 1/10, 2022	68,000	71.00
U.S. Gulf	Kenya	Sorghum	Feb 15/25, 2023	22,820	63.30*
U.S. Gulf	Jamaica	Wheat	Jun 20/30, 2023	4,400	63.00 op 66.00
PNW	Indonesia	Soybean Meal	Jul 21/31, 2023	35,000	106.00*
PNW	N. China	Heavy grain	Apr 21/27, 2023	63,000	28.00
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
Brazil	China	Heavy grain	May 5/10, 2023	65,000	36.50
Brazil	N. China	Heavy grain	Apr 21/30, 2023	66,000	40.60
Brazil	Vietnam	Heavy grain	Apr 11/29, 2023	66,000	37.00
Australia	Vietnam	Heavy grain	Feb 24/Apr 9, 2023	60,000	20.80

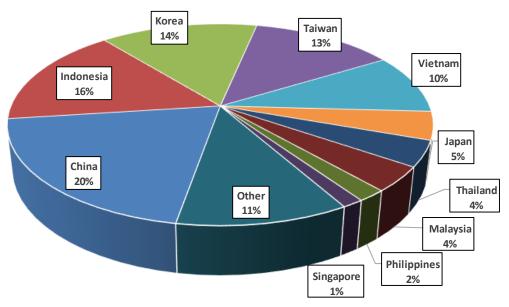
^{*50} percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

Note: Rates shown are per metric ton (2,204.62 lbs. = 1 metric ton), 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.

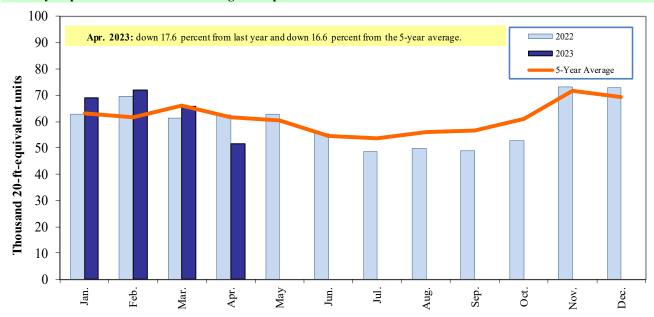
Figure 17
Top 10 destination markets for U.S. containerized grain exports, Jan-Apr 2023



Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: '1001', '100190', '10020', '10020', '10030', '100300', '1004', '100400', '1005', '100590', '1007', '100700', '110100', '110220', '110290', '1201', '120100', '120190', '120810', '230210', '230310', '230330', '2304', and '230990'.

Source: USDA, Agricultural Marketing Service, Transportation Services Division analysis of PIERS data.

Figure 18
Monthly shipments of U.S. containerized grain exports



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', '110220', '110220', '12010', '120100', '120190', '120810', '230210', '230310', '23034', and '230990'.

 $Source:\ USDA, Agricultural\ Marketing\ Service,\ Transportation\ Services\ Division\ analysis\ of\ PIERS\ data.$

Contacts and Links

Coordinators Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@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@usda.gov	(202) 720 - 0119
Rail Transportation		
Jesse Gastelle	jesse.gastelle@usda.gov	(202) 690 - 1144
Peter Caffarelli	petera.caffarelli@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		
April Taylor	april.taylor@usda.gov	(202) 720 - 7880
Rich Henderson	richard.henderson2@usda.gov	(919) 855 - 7801
Alexis Heyman	alexis.heyman@usda.gov	(847) 699 - 2414
Truck Transportation		
April Taylor	april.taylor@usda.gov	(202) 720 - 7880
Kranti Mulik	<u>kranti.mulik@usda.gov</u>	(202) 756 - 2577
Alexis Heyman	alexis.heyman@usda.gov	(847) 699 - 2414
Grain Exports		
Kranti Mulik	kranti.mulik@usda.gov	(202) 756 - 2577
Bernadette Winston	bernadette.winston@usda.gov	(202) 690 - 0487
Alexis Heyman	alexis.heyman@usda.gov	(847) 699 - 2414
·		,
Ocean Transportation		(202) 720 0110
Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
(Freight rates and vessels)	april taylar@yada gay	(202) 720 7000
April Taylor (Container movements)	april.taylor@usda.gov	(202) 720 - 7880
(Container movements)		
Editor		
Maria Williams	maria.williams@usda.gov	(202) 690-4430

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