

United States Department of Agriculture



April 27, 2023

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Grain Transportation Report

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

WEEKLY HIGHLIGHTS

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Both Sides Report Progress in Labor Negotiations for West Coast Ports

On April 20, both parties in the labor negotiations for the West Coast ports <u>seemed to indicate progress</u>. The International Longshore and Warehouse Union (ILWU) reported to the *Journal of Commerce (JOC)* that "it had reached 'a tentative agreement' with West Coast employers on 'certain key issues." On the other side, the Pacific Maritime Association (PMA) noted "significant progress has been achieved." Neither party disclosed which issues had been agreed on. Lasting for more than 10 months so far, the prolonged negotiations have sewn labor uncertainty in the market and resulted in cargo shifts to East and Gulf Coast ports. PMA added that key issues remain unresolved and "work actions led by ILWU Local 13 at the Ports of Los Angeles and Long Beach continued to disrupt some operations at key marine terminals."

Flooding Halts Barge Traffic on the Upper Mississippi River

On April 24, American Commercial Barge Line reported it had no boats on the Upper Mississippi River above St. Louis, MO, because of flooding conditions and lock closures. Currently, above Lock 17 (which is near New Boston, IL), all locks and dams are closed, and no freight is being accepted along the Twin Cities and Mid-Mississippi portions of the river. The locks and dams are expected to stay closed for the next 3 weeks. Also, around May 5, as far south as Lock 22 (located near Saverton, MO) locks and dams could potentially be forced to close and stay closed for approximately 2 weeks, because of possible high water. The closures and slower-than-normal export grain sales have resulted in below-normal barge freight rates (*GTR* table 8). In turn, low barge rates may lead some companies to reduce the number of barges they have in service.

Wheat Inspections Up; Total Inspections at Lowest Since Early January

For the week ending April 20, total inspections of grain (corn, wheat, and soybeans) for export from all major U.S. export regions totaled 1.68 million metric tons (mmt). Total grain inspections were down 18 percent from the previous week, down 36 percent from last year, and down 33 percent from the 3-year average. Inspections of grain were also at their lowest since the start of January. Wheat inspections rose 44 percent from the previous week—primarily, because of higher volumes to Asia and Africa. The rise in wheat, however, could not offset the combined declines of 26 percent for corn and 29 percent for soybeans. Grain inspections were down 3 percent in the Pacific Northwest (PNW) and down 28 percent in the Mississippi Gulf. During the last 4 weeks, grain inspections were 30 percent below last year and 25 percent below the 3-year average.

EPA Proposes Phase 3 Emissions Standards for Heavy Trucks

The Environmental Protection Agency (EPA) recently proposed its <u>Phase 3 standards</u> for heavy trucks in its Clean Trucks Plan. As EPA's most aggressive standards for heavy trucks to date, Phase 3 seeks to lower emissions by as much as 60 percent by 2045. The Phase 3 standards will complement EPA's criteria pollutant standards for model year (MY) 2027 and beyond, which were finalized in December 2022. EPA is proposing staggered time frames for cleaner heavy trucks to provide development time to refine the technology for electric and fuel cell vehicles. Despite additional time needed to develop hydrogen infrastructure, EPA expects hydrogen-refueling needs can be met by MY 2030. EPA requests comments and data on its proposed adoption rate, "including schedule and methods." A public hearing is slated for May 2 or 3, with another possible on May 4, depending on the volume of responses received.

	Snapshots by Sector
Grain Truck/Ocean Rate Advisory	Export Sales For the week ending April 13, unshipped balances of wheat, corn, and soybeans for marketing year (MY) 2022/23 totaled 22.15 million
Datasets	metric tons (mmt), down 34 percent from the same time last year and down 6 percent from last week. Net corn export sales for MY 2022/23 were 0.312 mmt, down 41 percent from last week. Net soybean export sales were 0.100 mmt, down 73 percent from last week. Net weekly wheat export sales were 0.259 mmt, up 91 percent from last week.
Specialists	Rail U.S. Class I railroads originated 21,704 grain carloads during the week ending April 15. This was an 8-percent increase from the previous week, 11 percent more than last year, and 2 percent fewer than the 3-year average.
Subscription Information	Average May shuttle secondary railcar bids/offers (per car) were \$206 below tariff for the week ending April 20. This was \$16 fewer than last week and \$2,752 lower than this week last year.
The next release is	 Barge For the week ending April 22, barged grain movements totaled 656,854 tons. This was 13 percent fewer than the previous week and 27 percent fewer than the same period last year. For the week ending April 22, 413 grain barges moved down river—57 fewer than last week. There were 637 grain barges unloaded in the New Orleans region, 9 percent fewer than last week.
May 4, 2023	Ocean For the week ending April 20, 27 oceangoing grain vessels were loaded in the Gulf—29 percent fewer than the same period last year. Within the next 10 days (starting April 21), 24 vessels were expected to be loaded—48 percent fewer than the same period last year. As of April 20, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$54.75. This was 2 percent less than the
	previous week. The rate from the Pacific Northwest to Japan was \$30.00 per mt, unchanged from the previous week. Fuel For the week ending April 24, the U.S. average diesel fuel price decreased 3.9 cents from the previous week to \$4.077 per gallon, 108.3 cents below the same week last year.
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Preferred citation: U.S. Department of Agriculture, Agricultural Marketing Service. *Grain Transportation Report*. April 27, 2023. Web: http://dx.doi.org/10.9752/TS056.04-27-2023

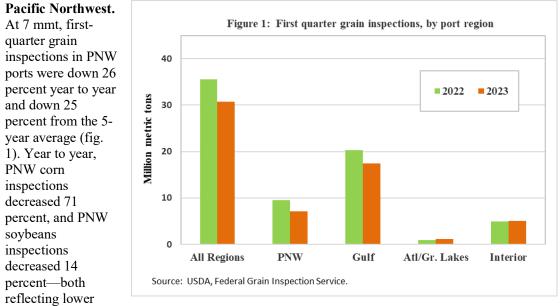
First-Quarter 2023 Grain Inspections Decline Year to Year

According to <u>USDA's Federal Grain Inspection Service (FGIS)</u>, first-quarter 2023 inspections of grain from all U.S. ports totaled 31 million metric tons (mmt)—down 14 percent from first quarter 2022 (year to year) and down 6 percent from the 5-year average (fig. 1). The year-to-year decrease in total grain inspections reflected lower inspections of corn and wheat. Also, total grain inspections decreased from year to year for the U.S. Gulf and Pacific Northwest (PNW)—the export regions with the largest volumes of inspections. However, total inspections rose for the Atlantic and Great Lakes region and the Interior. Overall, total inspections decreased mainly because of falling shipments to Japan, Colombia, and Egypt.

Breakdowns by Region

U.S. Gulf. At 17 mmt, first-quarter grain inspections at U.S. Gulf ports were down 14 percent year to year and down 6 percent from the 5-year average (fig. 1). The drops in grain inspections were reflected in the decline of barged grain movements to the U.S. Gulf, through the locking sections of the Mississippi, Ohio, and Arkansas Rivers (*GTR* table 9).

Year to year, U.S. Gulf corn inspections were down 47 percent, and wheat inspections were down 28 percent, with increased competition from Russia and Ukraine.¹ Over the same period, total U.S. Gulf soybean inspections were up 43 percent, because of rising shipments to China.



shipments from Asia. PNW first-quarter wheat inspections, however, were up 17 percent.

Atlantic and Great Lakes. At 1.2 mmt, first-quarter grain inspections for Atlantic and Great Lakes ports were up 28 percent year to year and up 40 percent from the 5-year average. These rises mainly reflected significant rises in soybean and wheat inspections. Total grain inspections in the Atlantic and Great Lakes reflected a year-to-year increase in inspections destined to China.

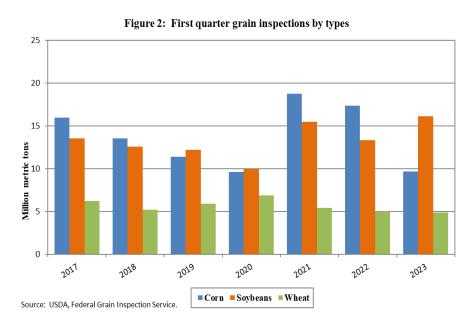
Interior. At 5 mmt, first-quarter grain inspections in the Interior rose 3 percent year to year and rose 26 percent from the 5-year average. Also, year to year, at 3.8 mmt, Interior shipments of grain to Latin

¹ Unless otherwise noted, all changes throughout this article are from year to year.

America were up 1 percent, and at 1.2 mmt, shipments to Asia were up 10 percent. Over the same period, inspections of corn rose 5 percent; soybeans rose 8 percent; and wheat fell 16 percent.

Breakdowns by Commodity

Corn. At 9.6 mmt, first-quarter corn inspections were down 44 percent year to year and down 32 percent from the 5-year average (fig. 2). Over 95 percent of first-quarter total corn shipments were destined to Asia and Latin America. Year to year, U.S. Gulf corn inspections decreased 47 percent, and PNW corn inspections fell 71 percent.



The year-to-year decrease in U.S. corn exports reflected a significant drop in grain shipments to China and Japan. According to the April release of USDA's <u>World Agricultural Supply and Demand</u> <u>Estimates (WASDE)</u>, U.S. corn exports for marketing year (MY) 2022/23 are projected to fall 25 percent from MY 2021/22 (unchanged from the March WASDE numbers). Cumulative (shipped) marketing year-to-date (YTD) export sales of corn are 38 percent below the YTD sales for MY 2021/22 (*GTR* table 11).

Soybeans. At 16.1 mmt, total first-quarter soybean inspections were up 21 percent year to year and up 5 percent from the 5-year average (fig. 2). Year to year, soybean inspections rose 43 percent in the U.S. Gulf, rose 25 percent in the Atlantic and Great Lakes, and rose 8 percent in the Interior. At 12.1 mmt, soybeans inspected for export to Asia were up 32 percent year to year. According to the April *WASDE*, U.S. soybean exports for MY 2022/23 are projected to fall 7 percent from MY 2021/22 (unchanged from March *WASDE* numbers). Cumulative (shipped) marketing YTD export sales of soybeans are 1 percent above the YTD export sales for MY 2021/22 (*GTR* table 11).

Wheat. At 4.9 mmt, first-quarter wheat inspections were down 2 percent year to year and 14 percent below the 5-year average. The year-to-year dip in U.S. wheat inspections mainly reflected the 28-percent drop in the U.S. Gulf and 16-percent drop in the Interior. These declines resulted from lower shipments to Africa and Latin America—most notably, Nigeria and Mexico. PNW, Atlantic, and Great Lakes wheat inspections significantly rose year to year. According to the April *WASDE*, U.S. wheat exports for MY 2022/23 are projected to fall 3 percent from MY 2021/22 (down from the March *WASDE* numbers). Cumulative (shipped) marketing YTD export sales of wheat are 5 percent below the YTD sales for MY 2021/22 (*GTR* table 11).

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Grain Transportation Indicators

Table 1

Grain transport cost indicators¹

	Truck	Rai	il	Barge	00	cean
For the week ending		Non-Shuttle	Shuttle		Gulf	Pacific
04/26/23	274	324	246	228	245	213
04/19/23	276	324	248	259	249	213

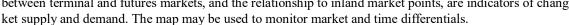
¹Indicator: Base year 2000 = 100. Weekly updates include truck = diesel (\$/gallon); rail = near-month secondary rail market bid and monthly tariff rate with fuel surcharge (\$/car); barge = Illinois River barge rate (index = percent of tariff rate); ocean = routes to Japan (\$/metric ton); n/a = not available due to holiday.

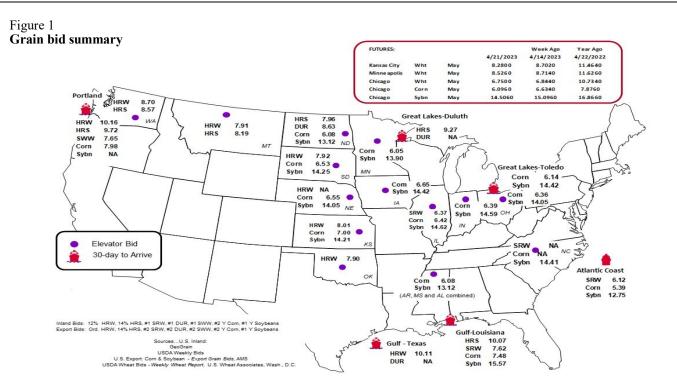
Source: USDA, Agricultural Marketing Service.

Table 2 Market Update	e: U.S. origins to export po	sition price spreads (\$/bus	shel)
Commodity	Origin-destination	4/21/2023	4/14/2023
Corn	IL–Gulf	-1.06	-0.93
Corn	NE–Gulf	-0.93	-0.78
Soybean	IA–Gulf	-1.15	-1.38
HRW	KS–Gulf	-2.10	-2.16
HRS	ND–Portland	-1.76	-1.85

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 mar-





Rail Transportation

Table 3

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

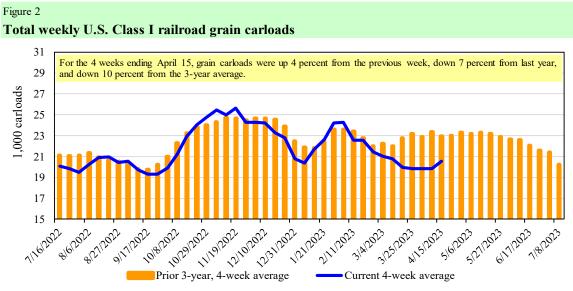
For the week ending:	E	ast		West		U.S. total	Canada	
4/15/2023	CSXT	NS	BNSF	KCS	UP	U.S. total	CN	СР
This week	2,060	2,360	9,901	1,267	6,116	21,704	5,265	5,027
This week last year	1,614	2,404	9,498	1,029	4,977	19,522	3,664	3,282
2023 YTD	30,744	39,697	148,156	19,916	86,016	324,529	78,226	69,282
2022 YTD	27,888	34,915	174,319	19,112	91,296	347,530	53,084	55,978
2023 YTD as % of 2022 YTD	110	114	85	104	94	93	147	124
Last 4 weeks as % of 2022*	112	96	80	112	108	93	142	133
Last 4 weeks as % of 3-yr. avg.**	114	96	76	119	101	90	110	99
Total 2022	93,313	130,341	570,232	66,338	296,945	1,157,169	214,292	214,010

*The past 4 weeks of this year as a percent of the same 4 weeks last year.

**The past 4 weeks as a percent of the same period from the prior 3-year average. YTD = year-to-date; avg. = average; yr. = year.

Note: NS = Norfolk Southern; KCS = Kansas City Southern; UP = Union Pacific; CN = Canadian National; CP = Canadian Pacific.

Source: Association of American Railroads.



Source: Association of American Railroads.

Table 4

Railcar auction offerings¹ (\$/car)²

Fo	For the week ending:		Delivery period						
	4/20/2023		May-22	Jun-23	Jun-22	Jul-23	Jul-22	Aug-23	Aug-22
BNSF ³	COT grain units	no bids	no offer	no bids	no offer	no bids	no bids	no bids	no bids
	COT grain single-car	3	no offer	0	no offer	0	0	0	0
UP ⁴	GCAS/Region 1	no offer	no offer	no offer	no offer	no offer	no offer	n/a	n/a
	GCAS/Region 2	no offer	no offer	no offer	no offer	no offer	no offer	n/a	n/a

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

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

³BNSF - COT = BNSF Railway Certificate of Transportation; north grain and south grain bids were combined effective the week ending 6/24/06.

⁴UP - GCAS = Union Pacific Railroad Grain Car Allocation System.

Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

Source: USDA, Agricultural Marketing Service.

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.

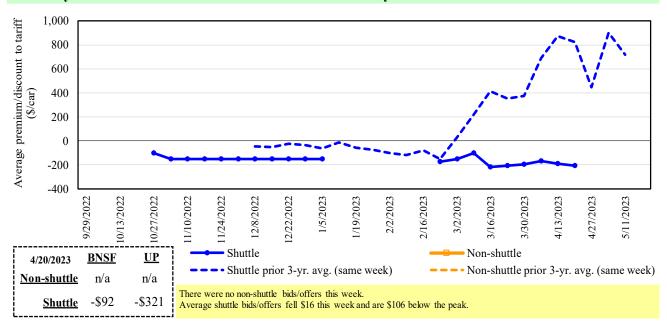


Figure 3 Secondary market bids/offers for railcars to be delivered in May 2023

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.

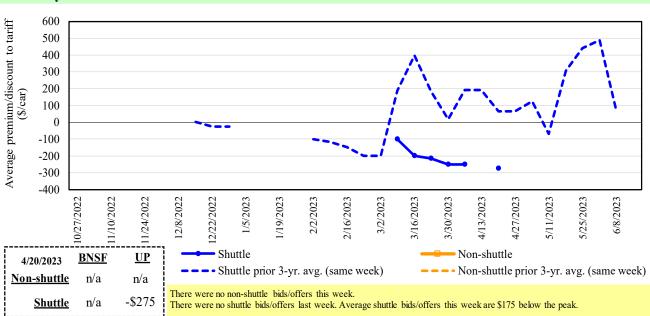
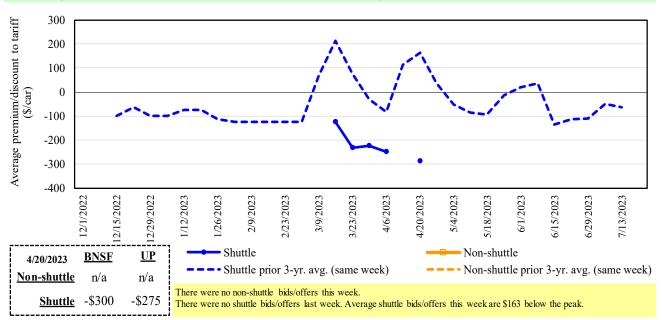


Figure 4 Secondary market bids/offers for railcars to be delivered in June 2023

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.





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		
	4/20/2023	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23
	BNSF-GF	n/a	n/a	n/a	n/a	n/a	n/a
le	Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
-shuttle	Change from same week 2022	n/a	n/a	n/a	n/a	n/a	n/a
Non-s	UP-Pool	n/a	n/a	n/a	n/a	n/a	n/a
Z	Change from last week	n/a	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
	BNSF-GF	(92)	n/a	(300)	(200)	42	800
	Change from last week	(11)	n/a	n/a	0	(83)	0
Shuttle	Change from same week 2022	(1,592)	n/a	(500)	(200)	(228)	(400)
Shu	UP-Pool	(321)	(275)	(275)	(200)	n/a	n/a
	Change from last week	(21)	n/a	n/a	n/a	n/a	n/a
	Change from same week 2022	(3,913)	n/a	(975)	(375)	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.

Data from James B. Joiner Co., Tradewest Brokerage Co.

Source: USDA, Agricultural Marketing Service.

Table 6

Tariff rail rates for unit and shuttle train shipments¹

			Tariff	Fuel	Tariff plus surcl	arge ner	Percent change
April 2023	Origin region ³	Destination region ³	rate/car	_ surcharge per car	metric ton	bushel ²	Y/Y ⁴
Unit train	····		Tate/cai	per cui	metric ton		
Wheat	Wichita, KS	St. Louis, MO	\$3,695	\$238	\$39.05	\$1.06	1
	Grand Forks, ND	Duluth-Superior, MN	\$3,858	\$89	\$39.20	\$1.07	6
	Wichita, KS	Los Angeles, CA	\$7,490	\$459	\$78.94	\$2.15	5
	Wichita, KS	New Orleans, LA	\$4,600	\$418	\$49.83	\$1.36	5
	Sioux Falls, SD	Galveston-Houston, TX	\$7,226	\$377	\$75.50	\$2.05	4
	Colby, KS	Galveston-Houston, TX	\$4,850	\$458	\$52.71	\$1.43	4
	Amarillo, TX	Los Angeles, CA	\$5,121	\$638	\$57.19	\$1.56	2
Corn	Champaign-Urbana, IL	New Orleans, LA	\$4,000	\$473	\$44.42	\$1.13	2
	Toledo, OH	Raleigh, NC	\$8,551	\$525	\$90.13	\$2.29	6
	Des Moines, IA	Davenport, IA	\$2,655	\$100	\$27.36	\$0.69	6
	Indianapolis, IN	Atlanta, GA	\$6,593	\$394	\$69.38	\$1.76	7
	Indianapolis, IN	Knoxville, TN	\$5,564	\$255	\$57.79	\$1.47	7
	Des Moines, IA	Little Rock, AR	\$4,250	\$294	\$45.13	\$1.15	7
	Des Moines, IA	Los Angeles, CA	\$6,130	\$857	\$69.38	\$1.76	6
Soybeans	Minneapolis, MN	New Orleans, LA	\$3,856	\$715	\$45.39	\$1.24	8
	Toledo, OH	Huntsville, AL	\$7,037	\$374	\$73.59	\$2.00	5
	Indianapolis, IN	Raleigh, NC	\$7,843	\$532	\$83.17	\$2.26	6
	Indianapolis, IN	Huntsville, AL	\$5,689	\$253	\$59.00	\$1.61	7
	Champaign-Urbana, IL	New Orleans, LA	\$4,865	\$473	\$53.01	\$1.44	6
Shuttle train							
Wheat	Great Falls, MT	Portland, OR	\$4,393	\$264	\$46.25	\$1.26	7
	Wichita, KS	Galveston-Houston, TX	\$4,311	\$206	\$44.85	\$1.22	-1
	Chicago, IL	Albany, NY	\$7,090	\$495	\$75.33	\$2.05	7
	Grand Forks, ND	Portland, OR	\$6,051	\$456	\$64.62	\$1.76	6
	Grand Forks, ND	Galveston-Houston, TX	\$5,399	\$475	\$58.33	\$1.59	6
	Colby, KS	Portland, OR	\$5,923	\$752	\$66.28	\$1.80	2
Corn	Minneapolis, MN	Portland, OR	\$5,660	\$555	\$61.72	\$1.57	8
	Sioux Falls, SD	Tacoma, WA	\$5,620	\$509	\$60.86	\$1.55	8
	Champaign-Urbana, IL	New Orleans, LA	\$4,170	\$473	\$46.11	\$1.17	8
	Lincoln, NE	Galveston-Houston, TX	\$4,360	\$296	\$46.24	\$1.17	9
	Des Moines, IA	Amarillo, TX	\$4,670	\$370	\$50.05	\$1.27	7
	Minneapolis, MN	Tacoma, WA	\$5,660	\$551	\$61.68	\$1.57	8
	Council Bluffs, IA	Stockton, CA	\$5,580	\$570	\$61.07	\$1.55	8
Soybeans	Sioux Falls, SD	Tacoma, WA	\$6,350	\$509	\$68.11	\$1.85	7
	Minneapolis, MN	Portland, OR	\$6,400	\$555	\$69.07	\$1.88	7
	Fargo, ND	Tacoma, WA	\$6,250	\$452	\$66.56	\$1.81	7
	Council Bluffs, IA	New Orleans, LA	\$5,095	\$545	\$56.01	\$1.52	5
	Toledo, OH	Huntsville, AL	\$5,277	\$374	\$56.12	\$1.53	7
	Grand Island, NE	Portland, OR	\$5,730	\$769	\$64.54	\$1.76	10

¹A 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.

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

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

 $^{4}\mbox{Percentage}$ change year over year (Y/Y) calculated using tariff rate plus fuel surcharge.

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

Date	e: Decembe	r 2021			Tari	ff rate plus	Percent
	Origin		Tariff rate Fu	el surcharge	fuel sur	charge per:	change ⁴
Commodity	state	Destination region	per car ¹	per car ²	metric ton ³	bushel 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
	ТΧ	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	МО	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

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

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

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: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

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

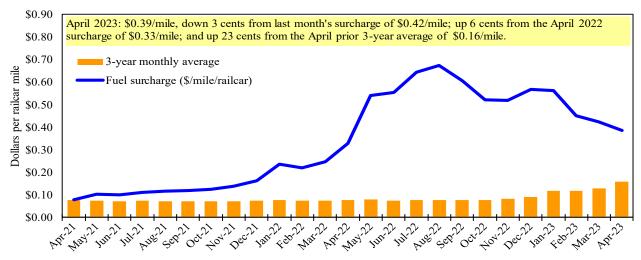
⁵ As of January 1, 2022, both BNSF and Union Pacific changed their billing and reporting of rates to Mexico.

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

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

Figure 6

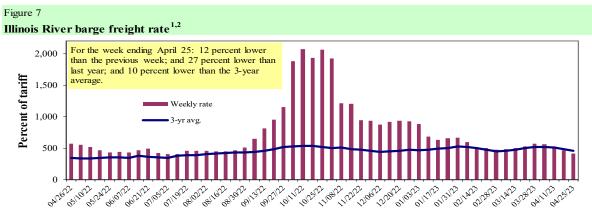
Railroad fuel surcharges, North American weighted average¹



¹Weighted 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.

Barge Transportation



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 8Weekly barge freight rates: Southbound only

		Twin Cities	Mid- Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo- Memphis
Rate ¹	4/25/2023 4/18/2023	- 546	- 510	411 467	308 345	330 371	330 371	274 305
\$/ton	4/25/2023 4/18/2023	- 33.80	27.13	19.07 21.67	12.29 13.77	15.48 17.40	13.33 14.99	8.60 9.58
Current	week % change	from the sam	e week:					
	Last year 3-year avg. ²	-	-	-27 -10	-35 -9	-41 -16	-41 -16	-36 -12
Rate ¹	May July	520 500	456 447	383 402	300 304	327 330	327 330	273 277

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

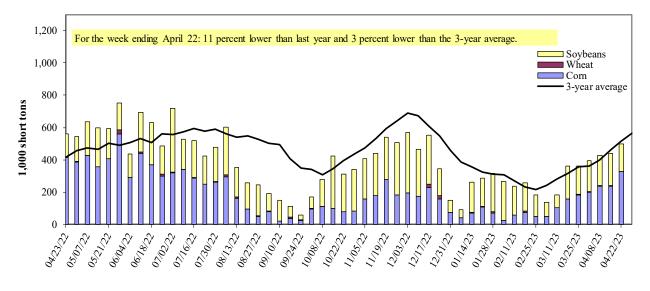
Calculating barge rate per ton: (Rate * 1976 tariff benchmark rate per ton)/100

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

Map Credit: USDA, Agricultural Marketing Service







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 04/22/2023	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	96	0	105	0	201
Winfield, MO (L25)	207	0	133	0	340
Alton, IL (L26)	334	0	169	6	509
Granite City, IL (L27)	329	0	171	6	506
Illinois River (La Grange)	48	0	6	6	60
Ohio River (Olmsted)	98	4	23	0	124
Arkansas River (L1)	0	22	4	0	27
Weekly total - 2023	427	26	198	6	657
Weekly total - 2022	627	47	206	15	895
2023 YTD ¹	4,254	414	4,504	140	9,312
2022 YTD^1	5,887	527	3,755	105	10,275
2023 as % of 2022 YTD	72	79	120	133	91
Last 4 weeks as % of 2022 ²	81	65	108	104	88
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.

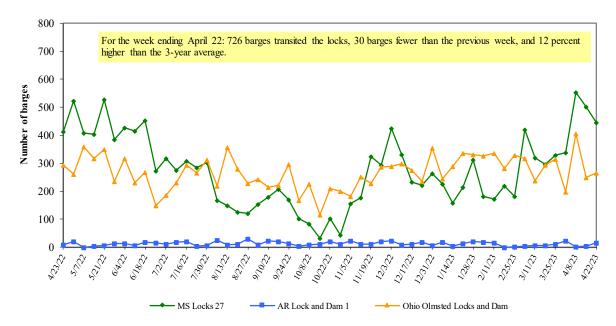
² As a percent of same period in 2022.

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

database and has noted the latest data may be revised in coming weeks.

Source: U.S. Army Corps of Engineers.

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.

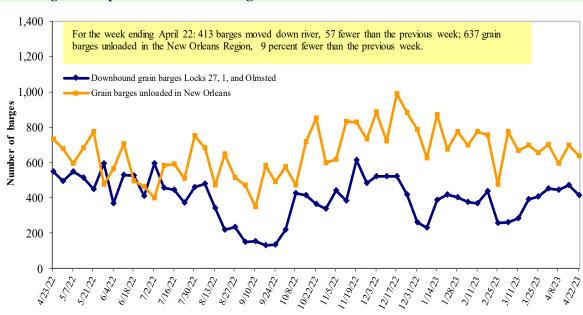


Figure 11 Grain barges for export in New Orleans region

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.

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

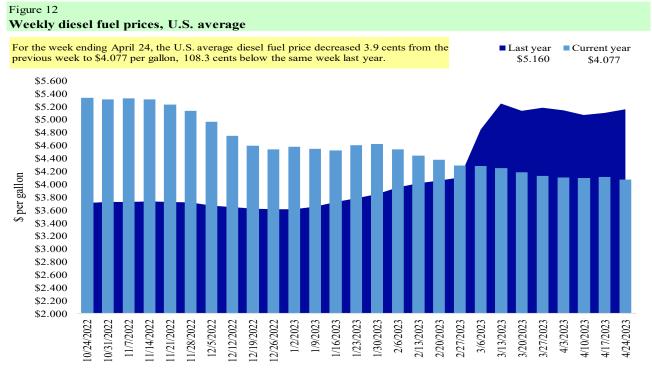
		Change from				
Region	Location	Price	Week ago	Year ago		
Ι	East Coast	4.151	-0.047	-1.058		
	New England	4.522	-0.018	-0.718		
	Central Atlantic	4.445	-0.041	-0.955		
	Lower Atlantic	4.004	-0.052	-1.082		
II	Midwest	3.984	-0.043	-1.003		
III	Gulf Coast	3.823	-0.053	-1.093		
IV	Rocky Mountain	4.124	0.020	-1.030		
V	West Coast	4.692	0.000	-1.149		
	West Coast less California	4.459	0.003	-0.887		
	California	4.960	-0.003	-1.317		
Total	United States	4.077	-0.039	-1.083		

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

Note: On June 13, 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)

			Wh	eat			Corn	Soybeans	Total
For the week ending	HRW	SRW	HRS	SWW	DUR	All wheat			
Export balances ¹									
4/13/2023	622	376	949	606	93	2,645	15,457	4,048	22,149
This week year ago	1,077	415	754	353	16	2,615	20,079	11,079	33,772
Cumulative exports-marketing year ²									
2022/23 YTD	4,412	2,434	4,718	4,006	321	15,891	22,595	46,333	84,819
2021/22 YTD	6,416	2,438	4,645	2,977	174	16,650	36,570	46,017	99,237
YTD 2022/23 as % of 2021/22	69	100	102	135	184	95	62	101	85
Last 4 wks. as % of same period 2021/22	57	109	119	181	482	102	81	42	70
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.

² Shipped 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 w HRS= hard red spring; SWW= soft white wheat; DUR= durum.

Source: USDA, Foreign Agricultural Service.

Table 12

Top 5 importers¹ of U.S. corn

For the week ending 4/13/2023	Total commitments ²		% change	Exports ³
	2022/23	2021/22	current MY	3-yr. avg.
	current MY	last MY	from last MY	2019-21
	1,000) mt -		-1,000 mt -
Mexico	13,721	15,490	(11)	15,227
China	8,662	13,453	(36)	12,616
Japan	5,095	8,628	(41)	10,273
Columbia	1,782	3,909	(54)	4,398
Korea	714	1,003	(29)	2,563
Top 5 importers	29,973	42,483	(29)	45,077
Total U.S. corn export sales	38,052	56,649	(33)	56,665
% of YTD current month's export projection	81%	90%		
Change from prior week ²	312	879		
Top 5 importers' share of U.S. corn export sales	79%	75%		80%
USDA forecast April 2023	47,074	62,875	(25)	
Corn use for ethanol USDA forecast, April 2023	133,350	135,281	(1)	

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

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 (carryover plus accumulated export); yr. = year; avg. = average; YTD = year to date.

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

Source: USDA, Foreign Agricultural Service.

Table 13

Top 5 importers¹ of U.S. soybeans

For the week ending 4/13/2023	Total co	ommitments ²	% change	Exports ³
	2022/23	2021/22	current MY	3-yr. avg.
	current MY	last MY	from last MY	2019-21
	1,	,000 mt -		-1,000 mt -
China	31,040	29,680	5	27,283
Mexico	4,235	4,943	(14)	4,929
Egypt	1,099	3,639	(70)	3,553
Japan	1,885	1,999	(6)	2,266
Indonesia	1,274	1,366	(7)	2,116
Top 5 importers	39,532	41,625	(5)	40,147
Total U.S. soybean export sales	50,381	57,096	(12)	54,231
% of projected exports	92%	97%		
change from prior week ²	100	460		
Top 5 importers' share of U.S.	78%	73%		74%
soybean export sales	/070	1370		/4/0
USDA forecast, April 2023	54,905	58,801	(7)	

¹Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2021/22; marketing year (MY) = Sep 1 - Aug 31. 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 (carryover plus accumulated export); yr. = year; avg. = average; YTD = year to date.

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 4/13/2023	Total commitment		% change	Exports ³
	2022/23	2021/22	current MY	3-yr. avg.
	current MY	last MY	from last MY	2019-21
	1,0	00 mt -		-1,000 mt -
Mexico	3,188	3,635	(12)	3,566
Philippines	2,289	2,720	(16)	2,985
Japan	2,101	2,350	(11)	2,453
China	1,098	848	30	1,537
Nigeria	767	1,856	(59)	1,528
Korea	1,342	1,249	8	1,459
Taiwan	863	918	(6)	1,106
Indonesia	345	122	183	711
Thailand	636	557	14	703
Colombia	534	700	(24)	621
Top 10 importers	13,162	14,955	(12)	16,669
Total U.S. wheat export sales	18,536	19,265	(4)	22,763
% of projected exports	88%	88%		
change from prior week ²	259	26		
Top 10 importers' share of U.S. wheat export sales	71%	78%		73%
USDA forecast, April 2023	21,117	21,798	(3)	

¹ Based on USDA, Foreign Agricultural Service(FAS) marketing year ranking reports for 2020/21; Marketing year (MY) = Jun 1 - May 31.

²Cumulative 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 (carryover plus accumulated export); yr. = year; avg. = average.

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

Source: USDA, Foreign Agricultural Service.

Grain Transportation Report

Table 15Grain inspections for export by U.S. port region (1,000 metric tons)

	For the week ending	Previous	Current week			2023 YTD as	Last 4-w	eeks as % of:	
Port regions	04/20/23	week*	as % of previous	2023 YTD*	2022 YTD*	% of 2022 YTD	Last year	Prior 3-yr. avg.	2022 total*
Pacific Northwest									
Wheat	201	60	337	3,611	3,170	114	87	46	9,836
Corn	186	267	70	1,463	4,152	35	63	54	9,615
Soybeans	0	72	0	3,441	4,050	85	33	57	14,178
Total	387	399	97	8,515	11,372	75	<u> </u>	51	33,629
Mississippi Gulf	507	0))	71	0,515	11,572	10	6	51	00,027
Wheat	46	98	47	891	1,253	71	67	78	4,053
Corn	579	787	74	7,922	13,935	57	70	73	30,781
Soybeans	290	390	74	11,563	8,753	132	88	132	31,283
Total	916	1,275	72	20,376	23,941	85	75	88	66,116
Texas Gulf		-,							00,110
Wheat	105	28	377	774	991	78	106	105	3,421
Corn	0	0	n/a	68	224	31	0	0	648
Soybeans	0	0	n/a	52	2	n/a	n/a	0	685
Total	105	28	377	894	1,216	74	79	84	4,754
nterior					,				,
Wheat	30	77	38	816	924	88	70	76	2,912
Corn	128	161	79	2,910	2,897	100	91	92	8,961
Soybeans	89	79	113	2,328	2,406	97	54	64	7,109
Total	247	318	78	6,054	6,227	97	74	80	18,982
Great Lakes									
Wheat	0	3	0	79	70	112	35	31	395
Corn	0	0	n/a	0	18	0	0	0	158
Soybeans	0	0	n/a	31	90	34	32	87	760
Total	0	3	0	109	178	62	29	45	1,312
Atlantic									
Wheat	1	0	n/a	39	37	106	9	27	169
Corn	5	0	n/a	48	69	70	17	34	309
Soybeans	15	17	89	1,113	1,058	105	22	42	2,867
Total	21	17	123	1,200	1,164	103	20	40	3,345
J.S. total from port	s*								
Wheat	383	266	144	6,209	6,445	96	80	61	20,786
Corn	898	1,216	74	12,411	21,295	58	70	70	50,471
Soybeans	395	558	71	18,527	16,358	113	67	100	56,882
Total	1,675	2,040	82	37,147	44,098	84	70	75	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.

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.

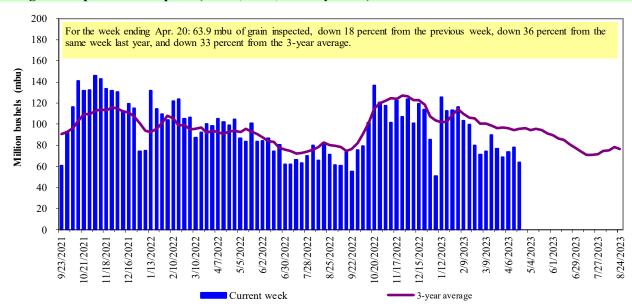
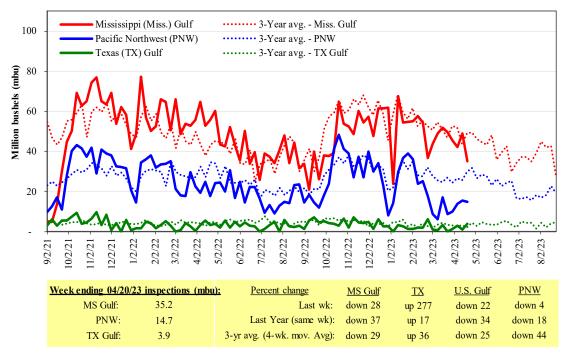


Figure 13 U.S. grain inspected for export (wheat, corn, and soybeans)

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

Source: USDA, Federal Grain Inspection Service.





Source: USDA, Federal Grain Inspection Service.

Table 16

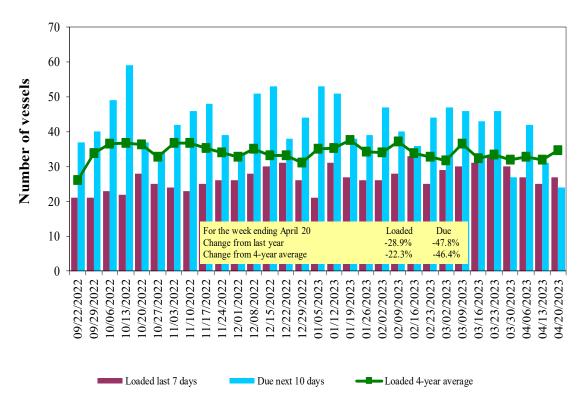
Weekly port region grain ocean vessel activity (number of vessels)

				Pacific
		Gulf		Northwest
		Loaded	Due next	
Date	In port	7-days	10-days	In port
4/20/2023	20	27	24	9
4/13/2023	14	25	31	7
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.

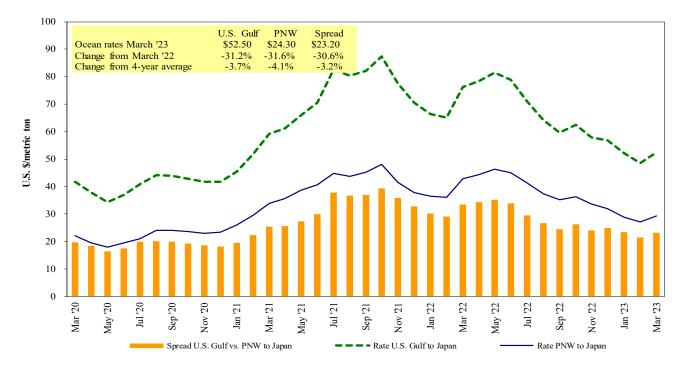
Figure 15 U.S. Gulf¹ vessel loading activity



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

Figure 16





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

Table 17

Ocean freight rates for selected shipments, week ending 04/22/2023

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	Djibouti	Wheat	Nov 5/15, 2022	22,500	102.88*
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
WC US	Japan	Wheat	Feb 1/Mar 1, 2023	34,500	47.75
Brazil	China	Heavy grain	May 5/10	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

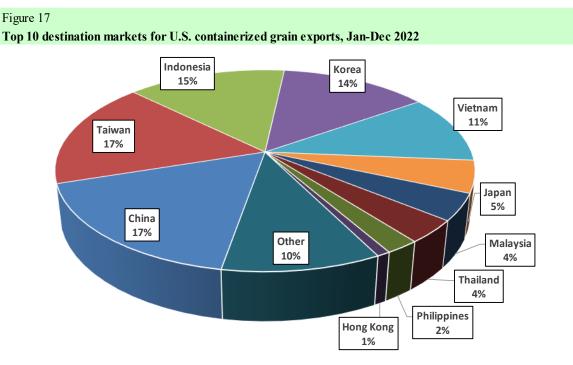
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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.



Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: '1001', '1001', '1002', '10020', '1003', '10030', '1004', '10040', '1005', '100590', '10070', '110100', '1102', '110220', '110290', '12010', '120100', '120190', '120810', '230210', '230310', '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', '10020', '10020', '10030', '1004', '100400', '1005', '100590', '1007', '100700', '110100', '110220', '110290', '12011', '120100', '120190', '120810', '230210', '230310', '230310', '2304', and '230990'.

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

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Preferred citation: U.S. Department of Agriculture, Agricultural Marketing Service. *Grain Transportation Report*. April 27, 2023. Web: <u>http://dx.doi.org/10.9752/TS056.04-27-2023</u>

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