United States Department of Agriculture

Grain Transportation Report

A weekly publication of the Agricultural Marketing Service
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Contents

The next release is June 22, 2023

WEEKLY HIGHLIGHTS

PMA and ILWU Reach Tentative Agreement on West Coast Labor Contract

After cargo-handling disruptions impacted terminal and gate operations at West Coast ports over the past 2 weeks, the Pacific Maritime Association (PMA) and International Longshore Warehouse Union (ILWU) announced late Wednesday evening (June 14) that they had reached a tentative agreement on a new 6-year contract covering 22,000 workers at all 29 ports along the West Coast. The U.S. Acting Secretary of Labor attended negotiations in San Francisco, CA, earlier this week to help negotiate a resolution. Details of the agreement have not been released, and the agreement is subject to ratification by both parties. The agreement comes after 13 months of contract negotiations, during which cargo-handling disruptions and uncertainty led to a shift in container traffic from West Coast ports to Gulf Coast and East Coast ports (see **this week's *GTR* feature article**).

USACE Researches Comprehensive Management of LMR

On June 1, the U.S. Army Corps of Engineers (USACE), New Orleans district, announced the launch of its Lower Mississippi River (LMR) Comprehensive Management Study, as authorized by the Water Resources and Development Act (WRDA) of 2020. The $25 million, 5-year mega-study will identify recommendations for comprehensively managing the system across multiple aspects. These aspects include reducing hurricane and storm damage, minimizing flood risk, implementing structural and nonstructural flood controls, managing floodplains, optimizing navigation, and other functions, as determined by the Secretary of the Army. As the study progresses, information updates, outreach opportunities, and public meetings will be available on the New Orleans District's website. In 2022, over 32.7 million tons of grain moved southbound to LMR for export (***GTR* table 9**).

USACE Seeks Input on UMR Channel Deepening Project

From June 5-8, the U.S. Army Corps of Engineers districts of (USACE) Little Rock, AR, and Tulsa, OK, held four workshops to provide information, answer questions, and collect input about a project to deepen the channel of the McClellan-Kerr Arkansas River Navigational System (MKARNS). By increasing the channel's minimum navigable depth to 12-feet throughout MKARNS, USACE intends to allow inland commercial vessels to sail at the same drafts on the Upper Mississippi River (UMR) that they have on the Lower Mississippi River. The expanded draft will allow more cargo to be loaded on to barges, thereby lowering transportation costs. From 2016 to 2020, MKARNS handled between 1.8 million and 3.0 million tons of grain—95 percent of which was corn and soybeans.

Nebraska and South Dakota Issue HOS Waivers for Hauling Fuel

In Nebraska and South Dakota, diesel and gasoline shortages prompted the governors of those States to issue emergency executive orders temporarily waiving Federal hours-of-service mandates for drivers hauling fuel. On June 10, the South Dakota governor declared a 30-day state of emergency exempting deliveries of "diesel, gasoline, jet fuel, propane, ethyl alcohol and natural gasoline." On June 6, the Nebraska governor extended through September 4 an earlier emergency HOS waiver. Like the earlier waiver, the new order exempts deliveries of diesel, biodiesel, gasoline or gasoline blends, fuel oil, ethanol and propane.

Snapshots by Sector

Export Sales

For the week ending June 1, **unshipped balances** of wheat, corn, and soybeans for marketing year (MY) 2022/23 totaled 12.94 million metric tons (mmt), up 13 percent from last week and down 50 percent from the same time last year. Net **corn export sales** for MY 2022/23 were 0.173, down 8 percent from last week. Net **soybean export sales** were 0.207 mmt, up 68 percent from last week. Net weekly **wheat export sales** for MY 2023/24, which began on June 1, were 0.235 mmt.

Rail

U.S. Class I railroads originated 15,945 **grain carloads** during the week ending June 3. This was a 19-percent decrease from the previous week, 29 percent fewer than last year, and 23 percent fewer than the 3-year average.

Average June **shuttle secondary railcar bids/offers** (per car) were $300 below tariff for the week ending June 8. This was $21 more than last week and $732 lower than this week last year. Average non-shuttle secondary railcar bids/offers per car were $13 above tariff. This was $78 more than last week and $188 lower than this week last year.

Barge

For the week ending June 10, **barged grain movements** totaled 419,150 tons. This was 20 percent less than the previous week and 49 percent less than the same period last year.

For the week ending June 10, 265 grain barges **moved down river**—66 fewer than last week. There were 506 grain barges **unloaded** in the New Orleans region, 3 percent more than last week.

Ocean

For the week ending June 8, 19 **oceangoing grain vessels** were loaded in the Gulf—41 percent fewer than the same period last year. Within the next 10 days (starting June 9), 25 vessels were expected to be loaded—34 percent fewer than the same period last year.

As of June 8, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $48.00. This was unchanged from the previous week. The rate from the Pacific Northwest to Japan was $26.50 per mt, unchanged from the previous week.

Fuel

For the week ending June 12, the U.S. average **diesel fuel price** decreased 0.3 cents from the previous week to $3.794 per gallon, 192.4 cents below the same week last year.

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Feature Article/Calendar

Shift in Port Market Shares Impacts U.S. Containerized Agricultural Exports

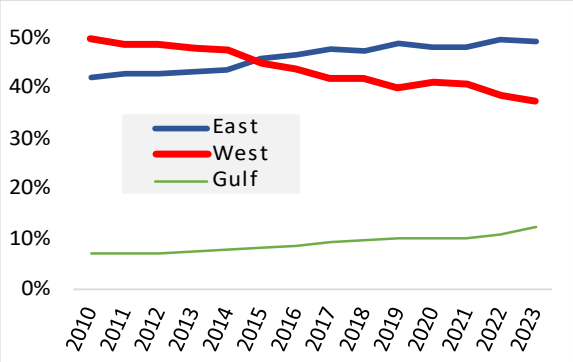
U.S. shippers of containerized cargo benefit from an array of ports and port operations along the vast U.S. coastal shores. Many criteria play into deciding which coastal port to move a container through, including each port's distance to destination, reliability, production sites, warehouse availability, ocean vessel service, inland transportation options, and freight rates, to name a few. To meet some of these criteria, exporters have long relied on importers' presence at ports—high-value, high-volume imports bring equipment and vessel service that benefit U.S. exporters.

In recent years, both upgrades of East Coast ports and the uncertainty around West Coast ports' reliability have led East Coast ports to play a growing role in U.S. trade. This shift has been especially apparent and widely reported about imported commodities. However, the coastal shares of agricultural exports have yet to be explored. This article examines the changes in coastal export shares for grain and non-grain agricultural commodities and discusses what the eastward shift of import cargo implies for agricultural exporters.

Eastward Shift in Coastal Import Shares

Each port region provides unique advantages to cargo movements. On the West Coast, deepwater ports and faster transit times (than Gulf and East Coast Ports) to and from Asian markets have attracted many importers and exporters since the 1990s. However, despite the West Coast ports' relative advantages, their market share of containerized imports has slowly declined over the past decade, allowing East and Gulf Coast ports to gain market share (fig. 1). Although West Coast *shares* have fallen, it is worth noting that both West and East Coast import *volumes* have increased over the past decade.

Figure 1. Coastal shares of all-commodity imports by weight, 2010-23



Note: 2023 includes January-March data.
Source: USDA, Agricultural Marketing Service analysis of PIERS data, through S&P Global.

Several factors have helped grow the market share of East Coast and Gulf Coast ports, including the 2016 Panama Canal expansion, East Coast projects to develop terminals and deepen harbors, and rising population growth—especially in the South Atlantic and Gulf Coast regions. These developments have all played a role in shifting cargo from West Coast ports. As an additional factor, importers and exporters alike have repeatedly cited the decline in West Coast ports' reliability and the disruptions surrounding West Coast labor contract negotiations, since the first such turmoil in 2002. To hedge against West Coast port delays, shippers shifted discretionary cargo—containers that could use either coast—to East and Gulf Coast ports.

The latest West Coast port contract negotiations—between the International Longshore and Warehouse Union (ILWU) (representing West Coast dockworkers) and the Pacific Maritime Association (PMA) (representing ocean carriers, terminal operators, and stevedores)— extended for over a year, since May 2022. Although, a 6-year tentative agreement was reached on June 14, 2023, the protracted negotiations sewed marketplace uncertainty and helped shift yet more cargo eastward. In recent months, as the negotiations' progress stalled, the negotiators noted the urgency for a resolution to prevent further market share erosion from West Coast ports. As paraphrased by the *Wall Street Journal*, in May, an official of the Retail Industry Leaders Association stated that its "members aren't likely to restore cargo flows that have been diverted to Gulf Coast and East Coast gateways until a deal has been voted on by dockworkers, which could take months once negotiators reach an agreement." The National Retail Federation recently voiced much the same prediction about its own members in the *Journal of Commerce*.

Because imports generate most containerized movements through the Nation's ports, the U.S. ocean transportation system is generally geared to supporting import moves. Thus, as backhaul cargo, the export market works within the capacity allocated for imports. The overall shift in import coastal market share and vessel capacity from West to East has diminished the vessel service available to exporters and the number of containers available at inland locations. Products that arrive on the East Coast tend to be distributed by truck throughout the densely populated East. As a result, fewer containers (than from West Coast arrivals) move inland—i.e., to the Midwest—where agricultural exports often originate.

Agricultural exporters—more than importers—are often tied to West Coast ports. Constrained by low profit margins and restricted origin options, some agricultural exporters lack importers' flexibility to shift operations to meet East or Gulf Coast vessel calls. Additionally, agricultural products' limited shelf life often deters exporters from using East Coast ports: the additional ocean transit time to some Asian destinations can range up to 20-30 days longer than from a West Coast departure. Of all agricultural exporters, those located on the West Coast necessarily rely most on the West Coast gateways, because their alternative—shipping products from the West Coast by rail to East Coast ports—would be cost

prohibitive. The next section explores how much agricultural and grain exporters have been able to follow the importer-led shift in resources to East Coast ports.

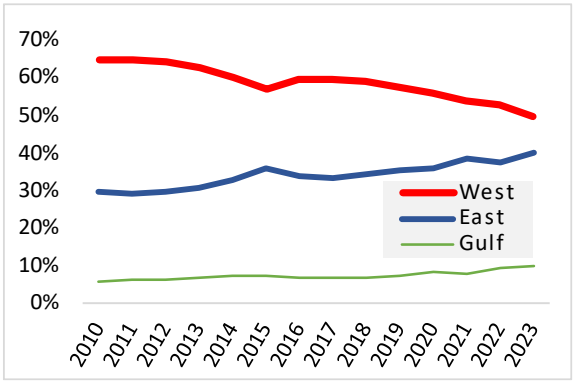
Non-Grain vs. Grain Agricultural Export Shares, by Coast

A comparison of figures 1 and 2 shows agricultural exporters depend much more on West Coast ports than do importers. As of March 2023, the West Coast ports' share of agricultural exports was 50 percent, versus 37 percent of imports. However, between 2010 and 2023, the West Coast ports' share of agricultural exports fell 15 percentage points, while their share of total imports fell only 12 points. Although this finding suggests agricultural shippers have shifted to East Coast ports at a slightly higher rate than importers, variation across individual agricultural commodities is missed.

By breaking out agricultural export shares into grain and non-grain shares, figure 3 reveals that containerized grain shippers (typically distillers' dried grains and identity-preserved soybeans) depend on West Coast ports, more heavily than do other containerized agricultural shippers (***GTR* fig. 18**). However, containerized grain shippers are also shown to have shifted away from West Coast ports over the past decade at a greater rate than importers and non-grain agriculture: containerized grain shippers' West Coast share has fallen 26 percentage points since 2010. Again, for grain shippers across the country, the relative difficulty of switching to East Coast ports likely varies considerably. Shippers in or near the center of the country may more easily shift their cargo eastward than shippers closer to the West Coast. Figure 3 shows non-grain containerized agricultural shippers also depend on West Coast ports, nearly as much as containerized grain shippers since 2015. So far in 2023, 48 percent of non-grain containerized volumes have shipped from West Coast ports, but since 2010, that share has dropped 11 percentage points.

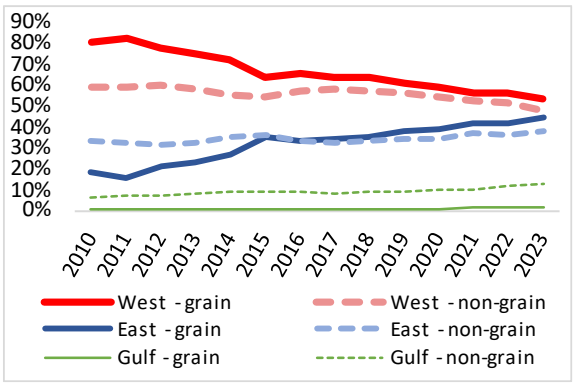
Of course, "non-grain" agricultural exports still capture many different commodities, some of which depend much more than others on West Coast ports. For example, exports of fruit, nuts, and vegetables depend heavily on West Coast ports (fig. 4). This dependency likely results both from the products' production taking place close to the West Coast, as well as the products' perishability adding to the need to shorten transit times to Asia. These commodities confirm that ocean vessel transit times and distance to port do *matter* in choosing an export port. Despite these considerations, the West Coast share for fruit, nuts, and vegetables has dropped in 2023. In part, the drop reflects a seasonal pattern, because 2023 only includes data through March. However, year-to-date West Coast fruit, nuts, and vegetable exports are below average, which may reflect labor dispute uncertainty at the ports.

Figure 2. Coastal shares of agricultural exports by weight, 2010-23



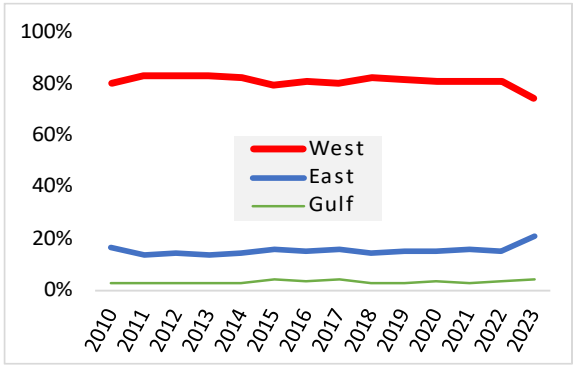
Note: 2023 includes January-March data.
Source: USDA-AMS analysis of S&P Global, PIERS data.

Figure 3. Coastal shares of grain and non-grain agricultural exports by weight, 2010-23



Note: 2023 includes January-March data.
Source: USDA-AMS analysis of S&P Global. PIERS data.

Figure 4. Coastal shares of fruit, nuts, and vegetable exports by weight, 2010-23



Note: 2023 includes January-March data.
Source: USDA-AMS analysis of S&P Global, PIERS data.

Conclusion

Overall, since 2010, containerized agricultural exports have followed the trend of imports—shifting market shares from West Coast ports to Gulf and East Coast ports. However, unlike imports, the majority of containerized agricultural export products, including grain, still ship from West Coast ports. Near the center of the country, some containerized grain shippers may be able to take advantage of improvements at East Coast ports and their expanded service options that have come with greater imports. However, shippers that depend heavily on West Coast ports may experience further degradation of service at West Coast ports, as equipment and vessel callings follow imports to the East and Gulf Coasts. Several factors have driven the shift in coastal export share, but near-term resolution of the ILWU/PMA negotiations is important to U.S. agricultural exporters, both to directly reduce uncertainty around West Coast ports' reliability and to help stem the tide of shifting coastal import shares. The tentative 6-year agreement reached on June 14 indicates progress toward resolution but still requires ratification by both parties.

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Grain Transportation Indicators

Table 1

Grain transport cost indicators[1]

	Truck	Rail		Barge	Ocean	
For the week ending		Non-Shuttle	Shuttle		Gulf	Pacific
06/14/23	255	326	238	131	215	188
06/07/23	255	321	237	136	215	188

[1]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.

Table 2

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

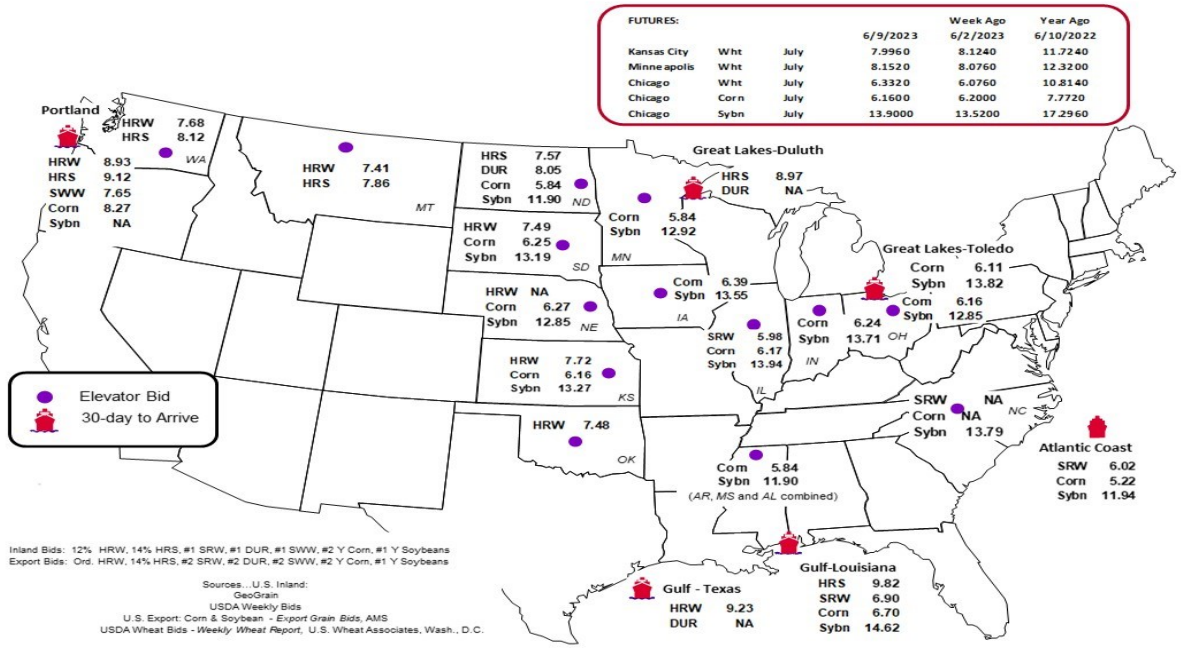
Commodity	Origin–destination	6/9/2023	6/2/2023
Corn	IL–Gulf	-0.53	-0.47
Corn	NE–Gulf	-0.43	-0.34
Soybean	IA–Gulf	-1.07	-1.01
HRW	KS–Gulf	-1.51	-1.62
HRS	ND–Portland	-1.55	-1.64

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)

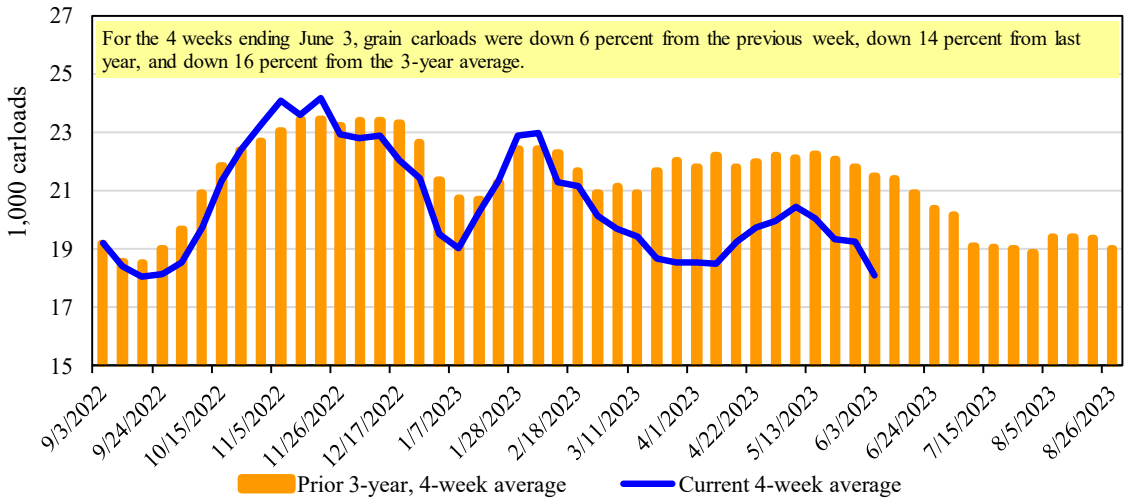
For the week ending: 6/03/2023	East		West		U.S. total	Central U.S./Canada	
	CSXT	NS	BNSF	UP		CPKC	CN
This week	1,973	2,686	7,129	4,157	15,945	3,731	3,367
This week last year	2,052	2,310	13,077	5,121	22,560	7,540	3,178
2023 YTD	43,317	59,304	211,819	123,850	438,290	237,271	105,085
2022 YTD	40,797	52,248	256,030	127,556	476,631	204,324	75,749
2023 YTD as % of 2022 YTD	106	114	83	97	92	116	139
Last 4 weeks as % of 2022	91	112	75	95	86	99	111
Last 4 weeks as % of 3-yr. avg.	93	115	76	84	84	87	96
Total 2022	93,313	130,563	570,232	296,945	1,091,053	538,276	214,100

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 offerings[1] ($/car)[2]

For the week ending: 6/08/2023		Delivery period							
		Jun-23	Jun-22	Jul-23	Jul-22	Aug-23	Aug-22	Sep-23	Sep-22
BNSF	COT grain units	no offer	no offer	no bids	0	no offer	0	no offer	no offer
	COT grain single-car	0	no offer	0	23	0	1	0	no offer
UP	GCAS/vouchers	no offer	n/a	10	n/a	10	n/a	n/a	n/a

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

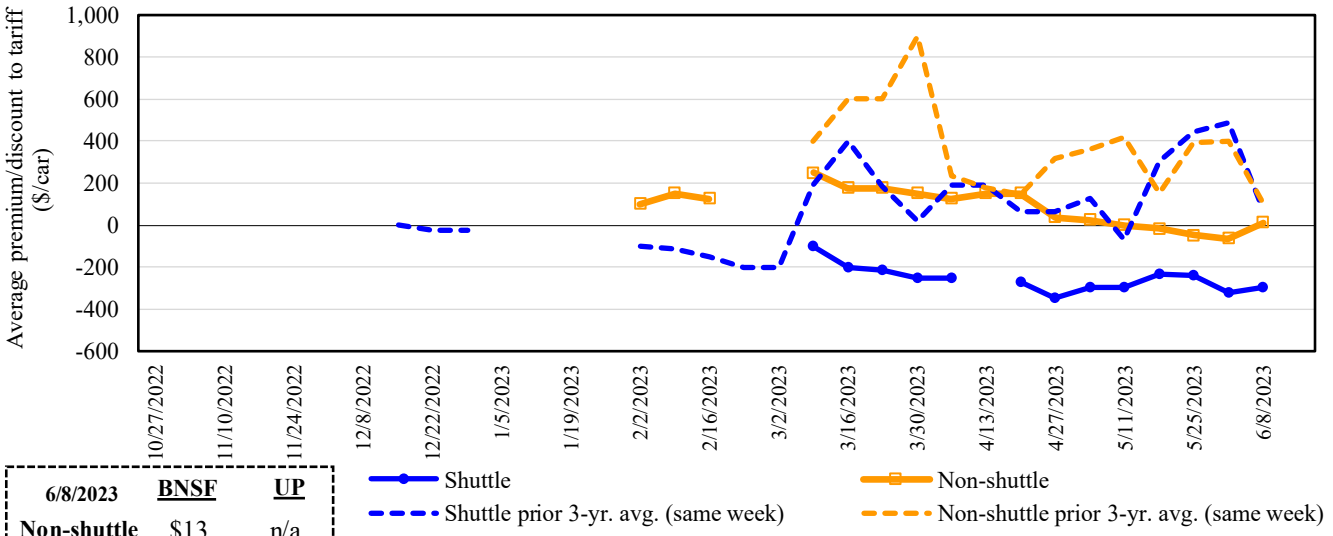
[2]Average premium/discount to tariff, last auction. n/a = not available.

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.

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 June 2023

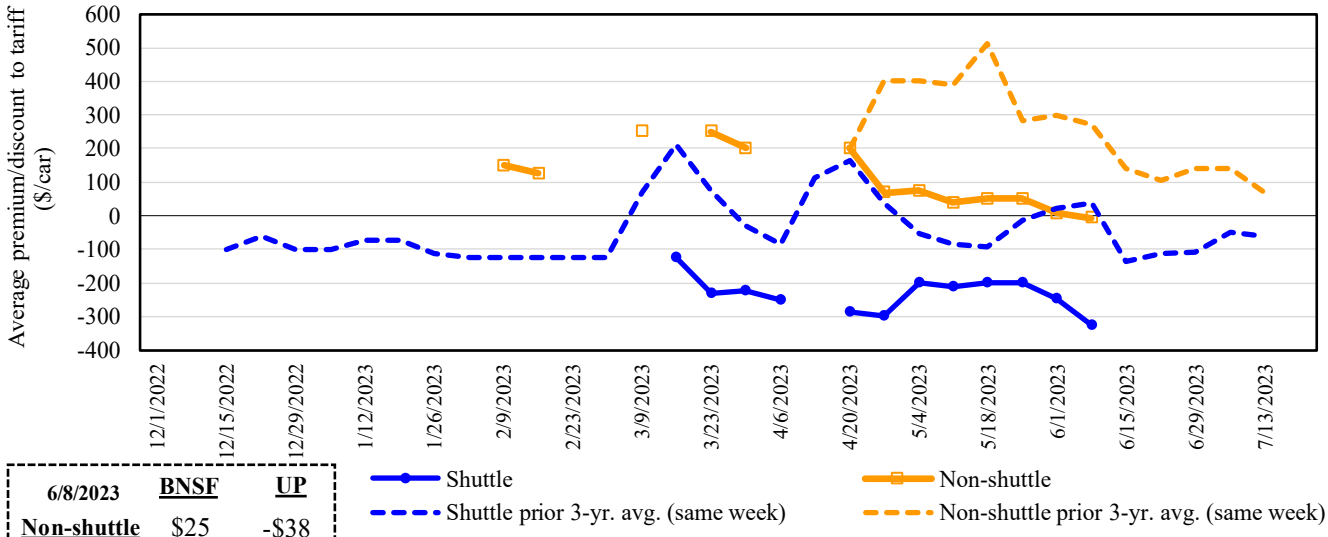


6/8/2023	BNSF	UP
Non-shuttle	$13	n/a
Shuttle	-$200	-$400

Average non-shuttle bids/offers rose $78 this week, and are $238 below the peak.
Average shuttle bids/offers rose $21 this week and are $200 below the peak.

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 July 2023



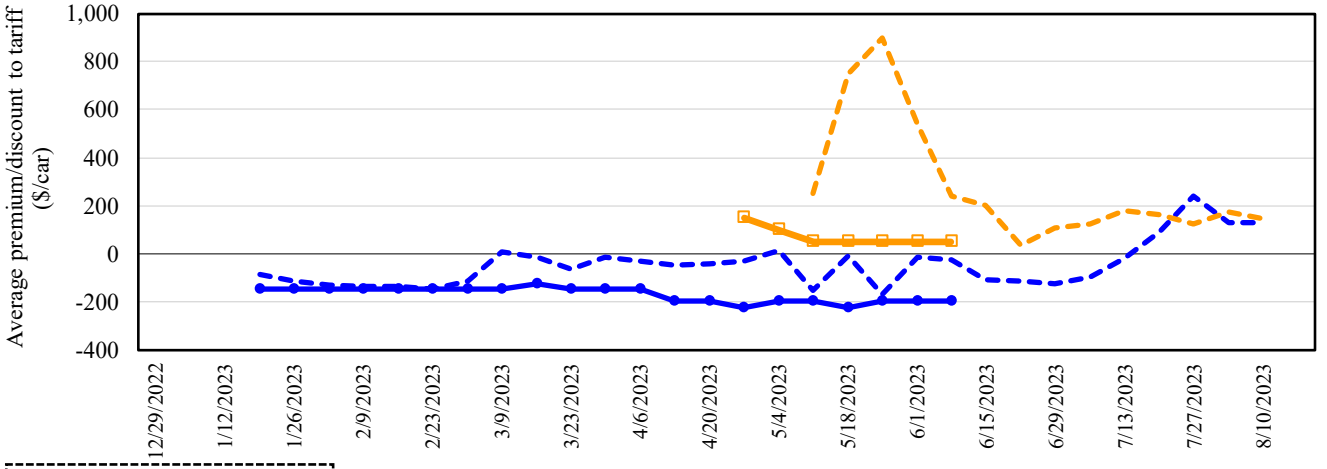
6/8/2023	BNSF	UP
Non-shuttle	$25	-$38
Shuttle	-$250	-$400

Average non-shuttle bids/offers fell $13 this week, and are $256 below the peak.
Average shuttle bids/offers fell $77 this week and are $200 below the peak.

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 August 2023



6/8/2023	BNSF	UP
Non-shuttle	$50	$50
Shuttle	-$200	-$200

Average non-shuttle bids/offers are unchanged this week, and are $100 below the peak.
Average shuttle bids/offers are unchanged this week and are $75 below the peak.

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: 6/8/2023		Delivery period					
		Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23
Non-shuttle	**BNSF-GF**	**13**	**25**	**50**	**n/a**	**n/a**	**n/a**
	Change from last week	-6	0	0	n/a	n/a	n/a
	Change from same week 2022	-188	-25	0	n/a	n/a	n/a
	UP-Pool	**n/a**	**-38**	**50**	**n/a**	**n/a**	**n/a**
	Change from last week	n/a	-25	0	n/a	n/a	n/a
	Change from same week 2022	n/a	-988	-750	n/a	n/a	n/a
Shuttle	**BNSF-GF**	**-200**	**-250**	**-200**	**-150**	**750**	**n/a**
	Change from last week	83	22	0	25	0	n/a
	Change from same week 2022	-331	-250	-175	-150	-750	n/a
	UP-Pool	**-400**	**-400**	**-200**	**-100**	**575**	**n/a**
	Change from last week	-42	-175	0	0	0	n/a
	Change from same week 2022	-1,133	-1,400	-700	-800	-625	n/a
	CP-GF	**-100**	**-100**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	0	0	n/a	n/a	n/a	n/a
	Change from same week 2022	0	-50	n/a	n/a	n/a	n/a

[1] Average 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 shipments[1]

June 2023	Origin region[3]	Destination region[3]	Tariff rate/car	Fuel surcharge per car	Tariff plus surcharge per: metric ton	Tariff plus surcharge per: bushel[2]	Percent change Y/Y[4]
Unit train							
Wheat	Wichita, KS	St. Louis, MO	$4,095	$202	$42.68	$1.16	3
	Grand Forks, ND	Duluth-Superior, MN	$3,858	$66	$38.96	$1.06	3
	Wichita, KS	Los Angeles, CA	$7,640	$337	$79.21	$2.16	-3
	Wichita, KS	New Orleans, LA	$4,825	$356	$51.45	$1.40	1
	Sioux Falls, SD	Galveston-Houston, TX	$7,376	$276	$75.99	$2.07	-2
	Colby, KS	Galveston-Houston, TX	$5,075	$390	$54.27	$1.48	0
	Amarillo, TX	Los Angeles, CA	$5,121	$543	$56.24	$1.53	-5
Corn	Champaign-Urbana, IL	New Orleans, LA	$4,000	$402	$43.72	$1.11	-5
	Toledo, OH	Raleigh, NC	$8,551	$456	$89.44	$2.27	2
	Des Moines, IA	Davenport, IA	$2,655	$85	$27.21	$0.69	4
	Indianapolis, IN	Atlanta, GA	$6,593	$342	$68.87	$1.75	3
	Indianapolis, IN	Knoxville, TN	$5,564	$222	$57.45	$1.46	4
	Des Moines, IA	Little Rock, AR	$4,250	$250	$44.69	$1.14	3
	Des Moines, IA	Los Angeles, CA	$6,130	$729	$68.12	$1.73	-2
Soybeans	Minneapolis, MN	New Orleans, LA	$4,242	$605	$48.14	$1.31	-10
	Toledo, OH	Huntsville, AL	$7,037	$325	$73.11	$1.99	2
	Indianapolis, IN	Raleigh, NC	$7,843	$462	$82.47	$2.24	2
	Indianapolis, IN	Huntsville, AL	$5,689	$219	$58.67	$1.60	4
	Champaign-Urbana, IL	New Orleans, LA	$4,865	$402	$52.31	$1.42	0
Shuttle train							
Wheat	Great Falls, MT	Portland, OR	$4,393	$194	$45.55	$1.24	0
	Wichita, KS	Galveston-Houston, TX	$4,611	$151	$47.29	$1.29	-3
	Chicago, IL	Albany, NY	$7,090	$430	$74.68	$2.03	3
	Grand Forks, ND	Portland, OR	$6,051	$334	$63.41	$1.73	-3
	Grand Forks, ND	Galveston-Houston, TX	$5,399	$348	$57.07	$1.55	-3
	Colby, KS	Portland, OR	$5,923	$640	$65.17	$1.77	-5
Corn	Minneapolis, MN	Portland, OR	$5,660	$407	$60.25	$1.53	-3
	Sioux Falls, SD	Tacoma, WA	$5,620	$373	$59.51	$1.51	-2
	Champaign-Urbana, IL	New Orleans, LA	$4,170	$402	$45.41	$1.15	1
	Lincoln, NE	Galveston-Houston, TX	$4,360	$217	$45.46	$1.15	1
	Des Moines, IA	Amarillo, TX	$4,670	$315	$49.50	$1.26	2
	Minneapolis, MN	Tacoma, WA	$5,660	$404	$60.22	$1.53	-3
	Council Bluffs, IA	Stockton, CA	$5,580	$418	$59.56	$1.51	-3
Soybeans	Sioux Falls, SD	Tacoma, WA	$6,350	$373	$66.76	$1.82	-2
	Minneapolis, MN	Portland, OR	$6,400	$407	$67.60	$1.84	-2
	Fargo, ND	Tacoma, WA	$6,250	$332	$65.36	$1.78	-1
	Council Bluffs, IA	New Orleans, LA	$5,095	$464	$55.20	$1.50	-1
	Toledo, OH	Huntsville, AL	$5,277	$325	$55.63	$1.51	3
	Grand Island, NE	Portland, OR	$5,730	$655	$63.40	$1.73	2

[1]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.

[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.

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

[4]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.

Table 7

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

Date: December 2021							
					Tariff rate plus fuel surcharge per:		Percent change[4]
Commodity	Origin state	Destination region	Tariff rate per car[1]	Fuel surcharge 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
	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

[1]Rates 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.

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

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

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

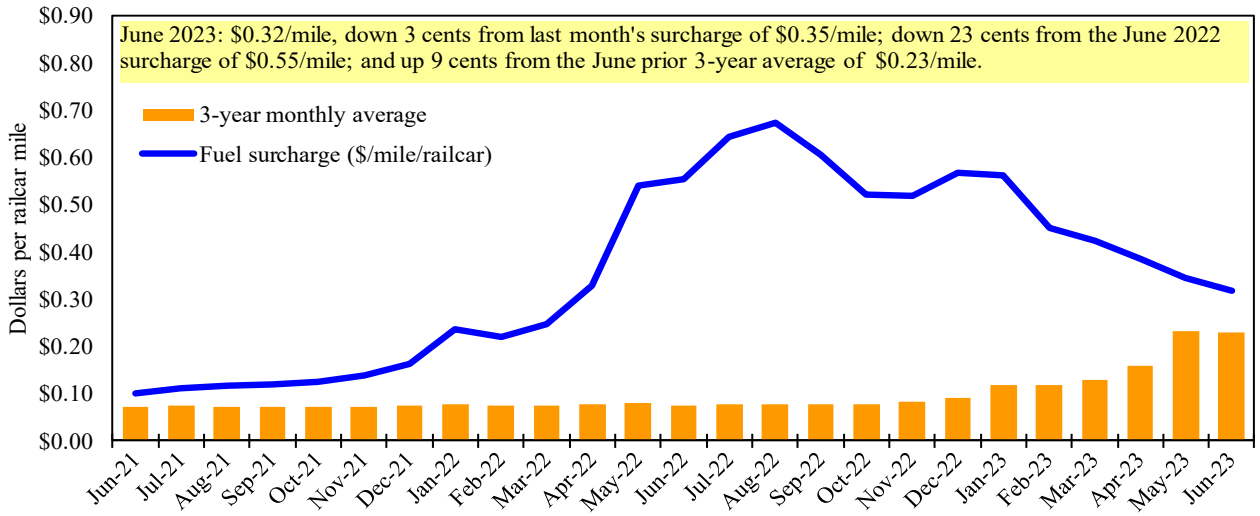
[5] As of January 1, 2022, both BNSF and Union Pacific changed their billing and reporting of rates to Mexico.

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 average[1]

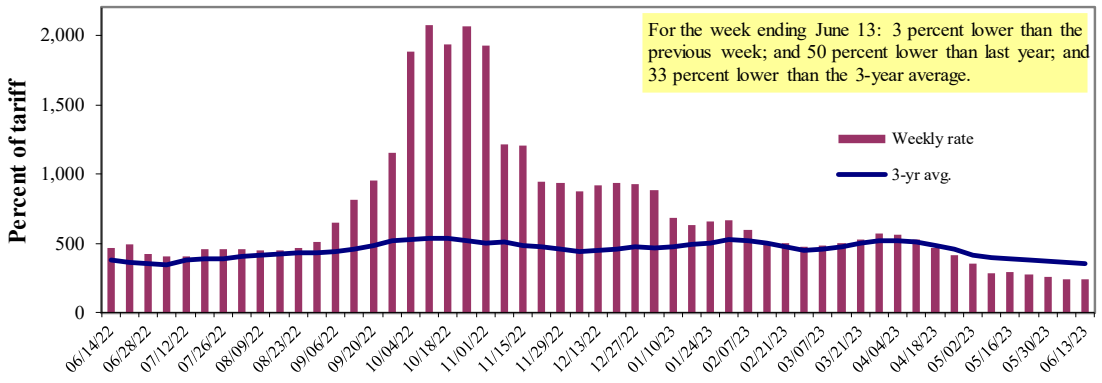


[1] Weighted by each Class I railroad's proportion of grain traffic for the prior year.

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

Barge Transportation

Figure 7
Illinois River barge freight rate[1,2]



[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-week moving average of the 3-year average.
Source: USDA, Agricultural Marketing Service.

Table 8
Weekly barge freight rates: Southbound only

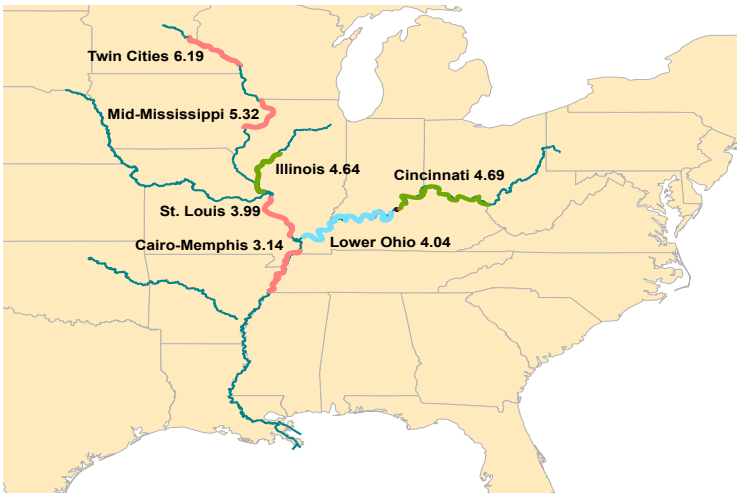
		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate[1]	6/13/2023	347	268	236	207	224	224	208
	6/6/2023	351	281	245	202	220	220	209
$/ton	6/13/2023	21.48	14.26	10.95	8.26	10.51	9.05	6.53
	6/6/2023	21.73	14.95	11.37	8.06	10.32	8.89	6.56
Current week % change from the same week:								
	Last year	-41	-48	-50	-43	-51	-51	-40
	3-year avg. [2]	-24	-29	-33	-17	-22	-22	-12
Rate[1]	July	378	289	272	225	242	242	219
	September	557	521	509	502	511	511	489

[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-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

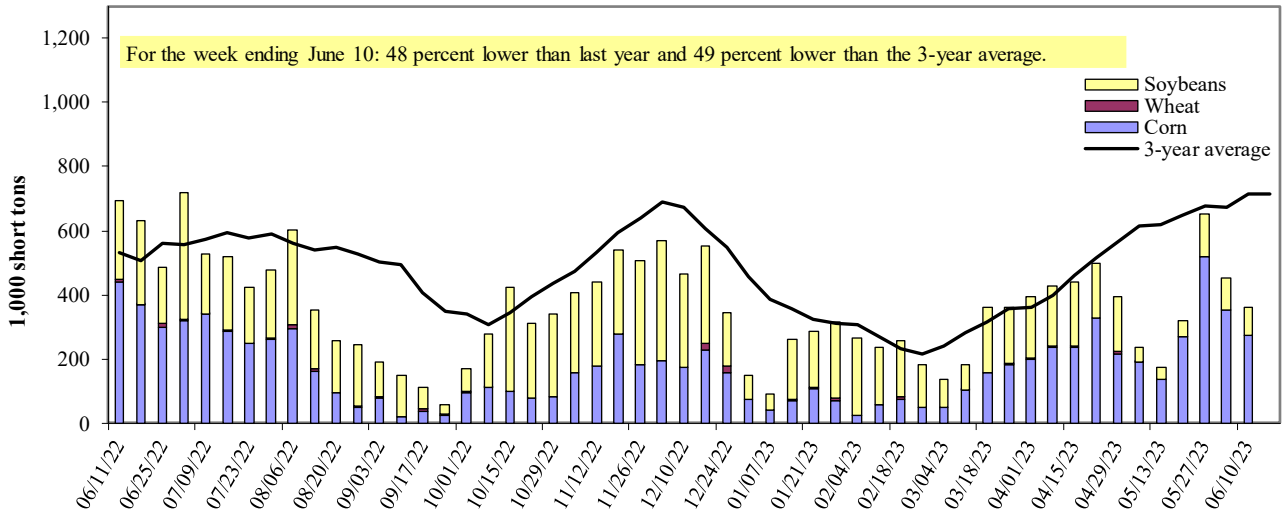
Select applicable index from market quotes are included in tables on this page. The 1976 benchmark rates per ton are provided in map.



Map Credit: USDA, Agricultural Marketing Service

Figure 9

Barge movements on the Mississippi River[1] (Locks 27 - Granite City, IL)



[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 06/10/2023	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	169	0	82	0	251
Winfield, MO (L25)	217	0	70	0	287
Alton, IL (L26)	266	0	84	0	350
Granite City, IL (L27)	275	0	86	0	360
Illinois River (La Grange)	84	0	18	0	101
Ohio River (Olmsted)	34	0	21	0	55
Arkansas River (L1)	0	4	0	0	4
Weekly total - 2023	308	4	107	0	419
Weekly total - 2022	516	28	277	7	829
2023 YTD[1]	6,879	542	5,344	152	12,917
2022 YTD[1]	9,492	747	5,496	132	15,866
2023 as % of 2022 YTD	72	73	97	115	81
Last 4 weeks as % of 2022[2]	86	27	52	0	73
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.

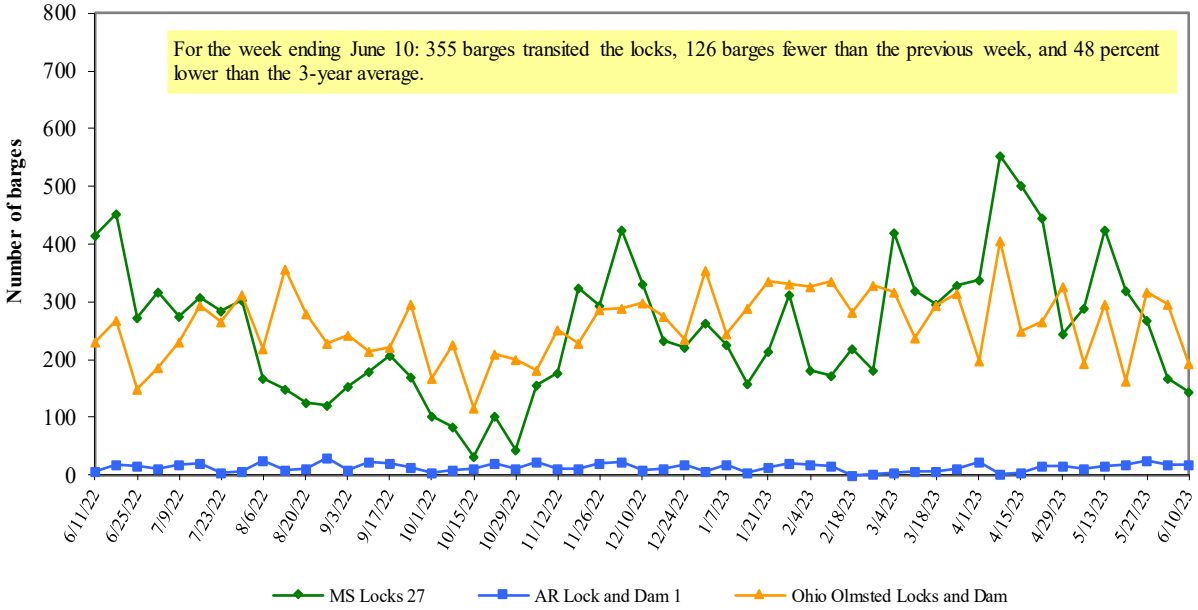
[2] As a percent of same period in 2022.

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

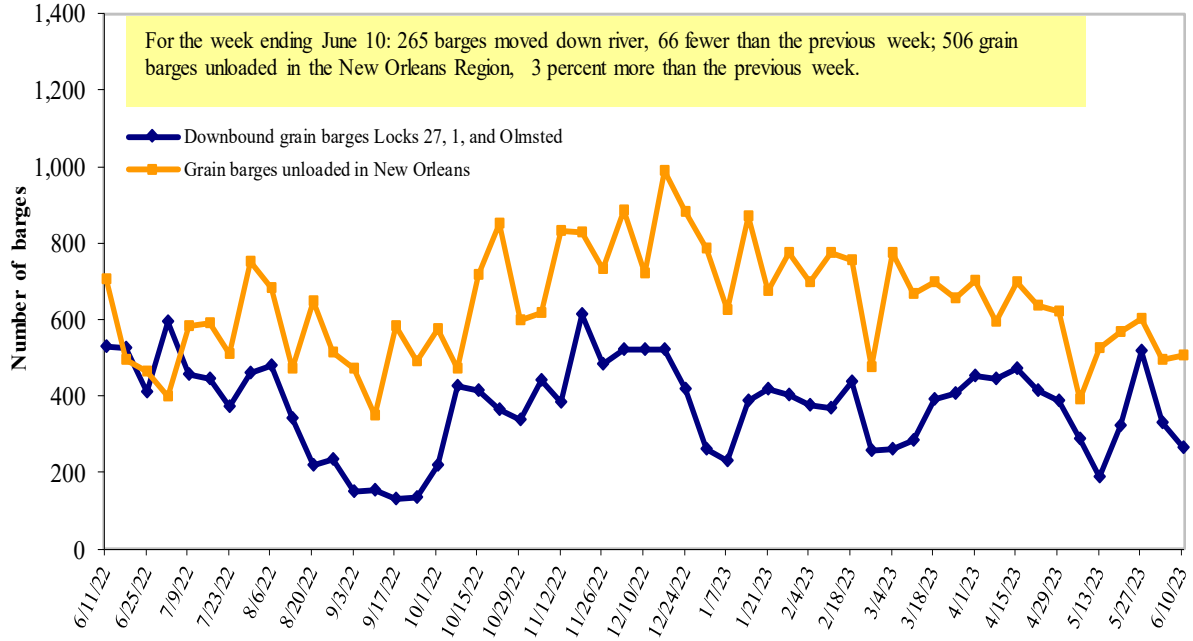


Note: The U.S. Army Corps of Engineers has recently migrated its lock and vessel database and has noted the latest data may be revised in coming weeks.

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.

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 6/12/2023 (U.S. $/gallon)

Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.860	0.013	-1.992
	New England	4.116	-0.008	-2.006
	Central Atlantic	4.137	-0.027	-1.947
	Lower Atlantic	3.732	0.030	-2.004
II	Midwest	3.717	-0.015	-1.914
III	Gulf Coast	3.489	0.020	-1.881
IV	Rocky Mountain	4.013	-0.031	-1.679
V	West Coast	4.424	-0.046	-1.999
	West Coast less California	4.142	-0.072	-1.880
	California	4.750	-0.015	-2.137
Total	United States	3.794	-0.003	-1.924

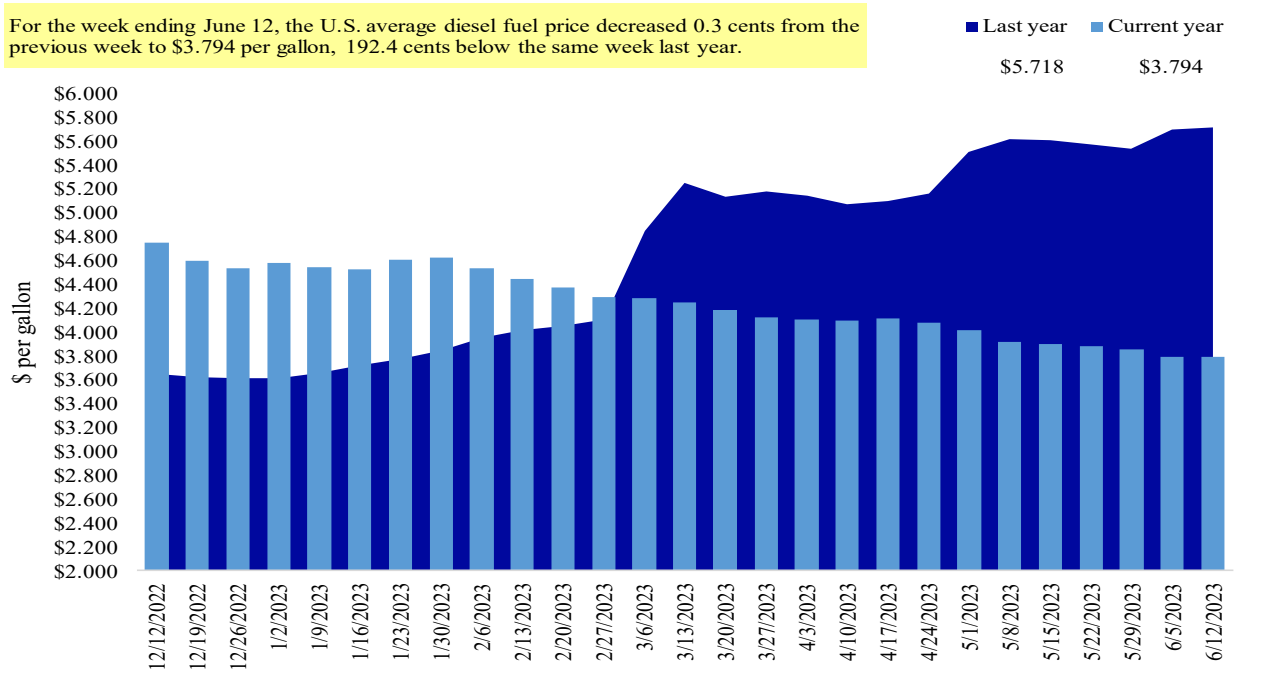
[1]Diesel fuel prices include all taxes. Prices represent an average of all types of diesel fuel.

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.

Figure 12

Weekly diesel fuel prices, U.S. average



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)

	Wheat						Corn	Soybeans	Total
For the week ending	HRW	SRW	HRS	SWW	DUR	All wheat			
Export balances[1]									
6/1/2023	674	1,076	1,123	628	94	3,596	6,553	2,793	12,942
This week year ago	1,160	920	1,367	836	64	4,347	11,840	9,883	26,070
Cumulative exports-marketing year [2]									
2022/23 YTD	53	27	82	28	0	190	31,786	48,378	80,353
2021/22 YTD	63	31	60	58	0	212	47,682	50,009	97,903
YTD 2022/23 as % of 2021/22	85	86	137	48	0	90	67	97	82
Last 4 wks. as % of same period 2021/22	37	50	49	48	102	47	71	30	51
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 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 6/01/2023	Total commitments[2]			% change	Exports[3]
	2023/24 next MY	2022/23 current MY	2021/22 last MY	current MY from last MY	3-yr. avg. 2019-21
		1,000 mt -			-1,000 mt -
Mexico	1,977	14,368	15,901	(10)	15,227
China	272	7,512	14,730	(49)	12,616
Japan	523	6,028	9,232	(35)	10,273
Columbia	0	2,063	4,294	(52)	4,398
Korea	0	816	1,330	(39)	2,563
Top 5 importers	**2,772**	**30,786**	**45,488**	(32)	**45,077**
Total U.S. corn export sales	**2,958**	**38,339**	**59,522**	(36)	**56,665**
% of YTD current month's export projection	6%	87%	95%		
Change from prior week[2]	**(107)**	**173**	**280**		
Top 5 importers' share of U.S. corn export sales	94%	80%	76%		80%
USDA forecast June 2023	**53,435**	**43,893**	**62,875**	(30)	
Corn use for ethanol USDA forecast, June 2023	**134,620**	**133,350**	**135,281**	(1)	

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

[2]Cumulative 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.

[3]FAS 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 importers[1] of U.S. soybeans

For the week ending 6/01/2023	Total commitments[2]			% change	Exports[3]
	2023/24 next MY	2022/23 current MY	2021/22 last MY	current MY from last MY	3-yr. avg. 2019-21
		1,000 mt -			-1,000 mt -
China	1,447	31,096	30,391	2	27,283
Mexico	184	4,405	5,266	(16)	4,929
Egypt	0	1,142	4,087	(72)	3,553
Japan	115	2,253	2,278	(1)	2,266
Indonesia	1	1,448	1,600	(9)	2,116
Top 5 importers	**1,746**	**40,344**	**43,622**	(8)	**40,147**
Total U.S. soybean export sales	**3,117**	**51,171**	**59,892**	(15)	**54,231**
% of projected exports	6%	94%	102%		
change from prior week[2]	**265**	**207**	**430**		
Top 5 importers' share of U.S. soybean export sales	56%	79%	73%		**74%**
USDA forecast, June 2023	**53,815**	**54,496**	**58,801**	(7)	

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

[2]Cumulative 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.

[3]FAS 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 importers[1] of all U.S. wheat

For the week ending 6/01/2023	Total commitments[2]		% change current MY from last MY	Exports[3] 3-yr. avg. 2020-22
	2023/24 current MY	2022/23 last MY		
	1,000 mt -			-1,000 mt -
Mexico	599	802	(25)	3,397
Philippines	567	804	(30)	2,615
Japan	397	361	10	2,281
China	7	0	0	1,740
Korea	305	273	12	1,426
Nigeria	50	286	(83)	1,276
Taiwan	220	127	73	944
Thailand	49	122	(60)	643
Colombia	78	231	(66)	537
Indonesia	10	11	(6)	469
Top 10 importers	**2,282**	**3,018**	(24)	**15,327**
Total U.S. wheat export sales	**3,786**	**4,559**	(17)	**20,411**
% of projected exports	19%	22%		
change from prior week[2]	**235**	**451**		
Top 10 importers' share of U.S. wheat export sales	60%	66%		75%
USDA forecast, June 2023	**19,755**	**21,117**	(6)	

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

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

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

Source: USDA, Foreign Agricultural Service.

Table 15

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

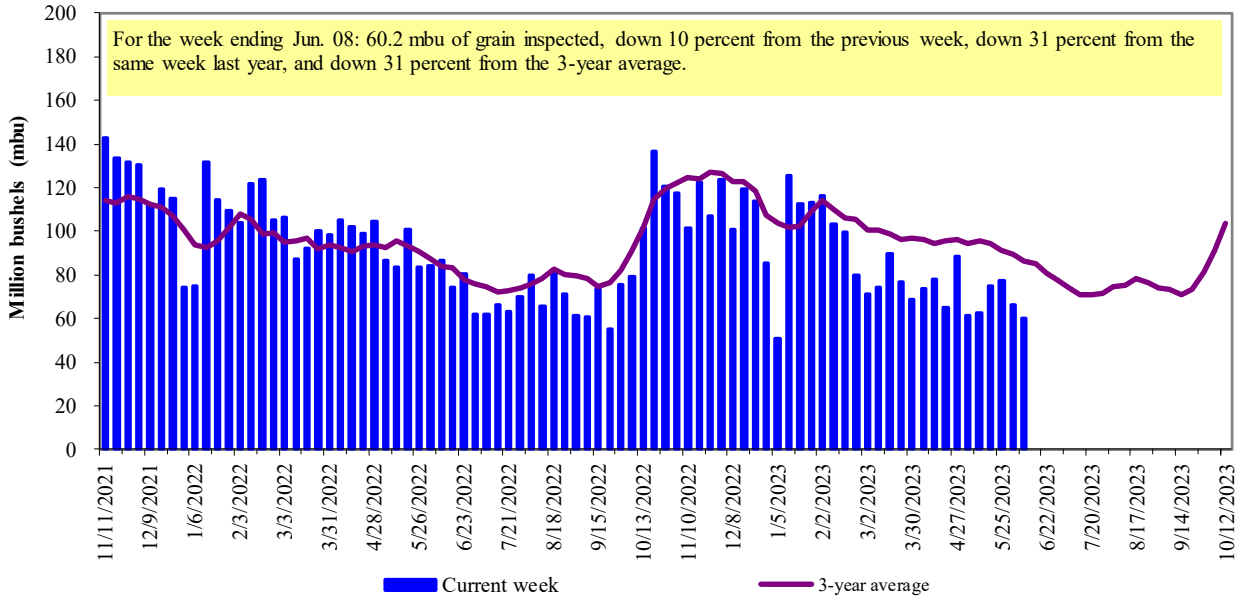
Port regions	For the week ending 06/08/23	Previous week*	Current week as % of previous	2023 YTD*	2022 YTD*	2023 YTD as % of 2022 YTD	Last 4-weeks as % of:		2022 total*
							Last year	Prior 3-yr. avg.	
Pacific Northwest									
Wheat	194	142	136	4,751	4,138	115	137	83	9,836
Corn	327	263	124	3,784	6,913	55	83	83	9,615
Soybeans	0	0	n/a	3,521	4,337	81	0	0	14,178
Total	**521**	**405**	**129**	**12,057**	**15,388**	**78**	**96**	**82**	**33,629**
Mississippi Gulf									
Wheat	15	43	34	1,259	1,847	68	59	80	4,053
Corn	619	766	81	12,815	19,521	66	91	91	30,781
Soybeans	72	143	51	12,715	11,073	115	41	54	31,283
Total	**706**	**952**	**74**	**26,789**	**32,441**	**83**	**76**	**83**	**66,116**
Texas Gulf									
Wheat	0	56	0	1,202	1,534	78	74	56	3,421
Corn	0	11	0	110	356	31	22	35	648
Soybeans	0	0	n/a	52	2	n/a	n/a	n/a	685
Total	**0**	**67**	**0**	**1,363**	**1,891**	**72**	**60**	**53**	**4,754**
Interior									
Wheat	27	65	41	1,137	1,296	88	74	77	2,912
Corn	202	144	141	4,202	4,182	100	94	94	8,961
Soybeans	59	85	70	2,902	3,360	86	56	67	7,109
Total	**289**	**294**	**98**	**8,241**	**8,838**	**93**	**77**	**83**	**18,982**
Great Lakes									
Wheat	11	0	n/a	134	111	121	85	31	395
Corn	0	0	n/a	23	100	23	0	0	158
Soybeans	0	0	n/a	31	195	16	0	0	760
Total	**11**	**0**	**n/a**	**188**	**407**	**46**	**15**	**17**	**1,312**
Atlantic									
Wheat	13	0	n/a	58	37	156	n/a	657	169
Corn	0	3	0	68	126	54	25	76	309
Soybeans	16	6	262	1,184	1,423	83	18	42	2,867
Total	**29**	**9**	**319**	**1,309**	**1,585**	**83**	**25**	**58**	**3,345**
U.S. total from ports*									
Wheat	260	307	85	8,540	8,963	95	99	76	20,786
Corn	1,149	1,186	97	21,002	31,197	67	86	88	50,471
Soybeans	148	234	63	20,405	20,390	100	40	55	56,882
Total	**1,556**	**1,726**	**90**	**49,947**	**60,550**	**82**	**78**	**80**	**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)

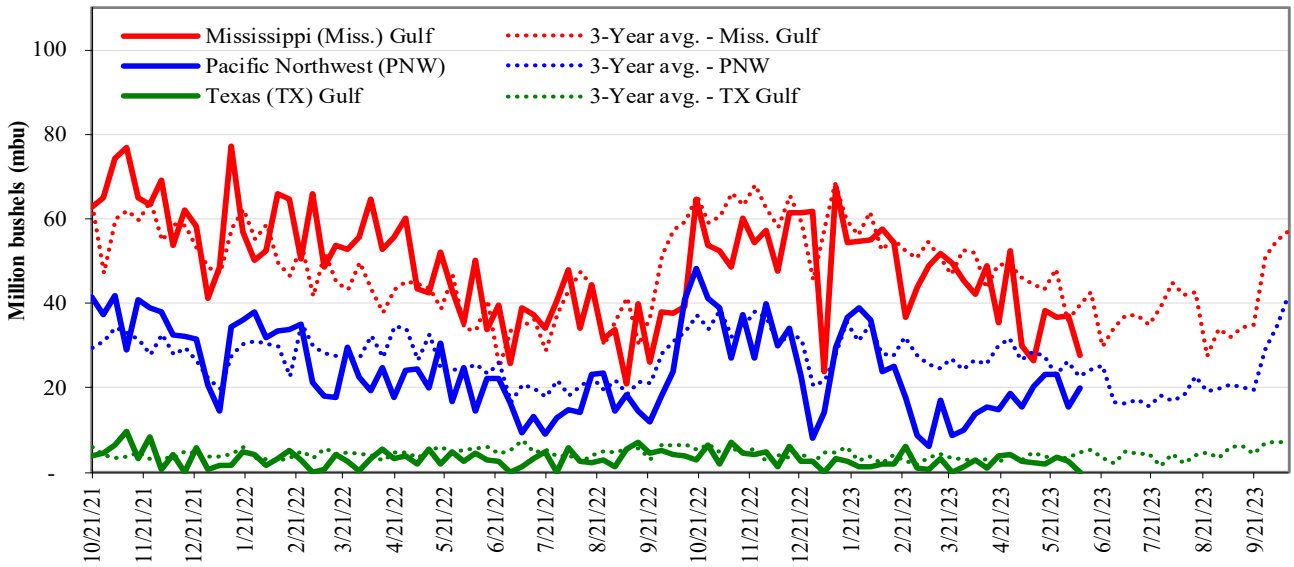


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 14

U.S. Grain inspections: U.S. Gulf and PNW[1] (wheat, corn, and soybeans)



Week ending 06/08/23 inspections (mbu):	
MS Gulf:	27.6
PNW:	20.0
TX Gulf:	0.0

Percent change	MS Gulf	TX	U.S. Gulf	PNW
Last wk:	down 25	down 100	down 30	up 28
Last Year (same wk):	down 45	down 100	down 50	up 39
3-yr avg. (4-wk. mov. Avg):	down 34	down 100	down 39	down 20

Source: USDA, Federal Grain Inspection Service.

Ocean Transportation

Table 16

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

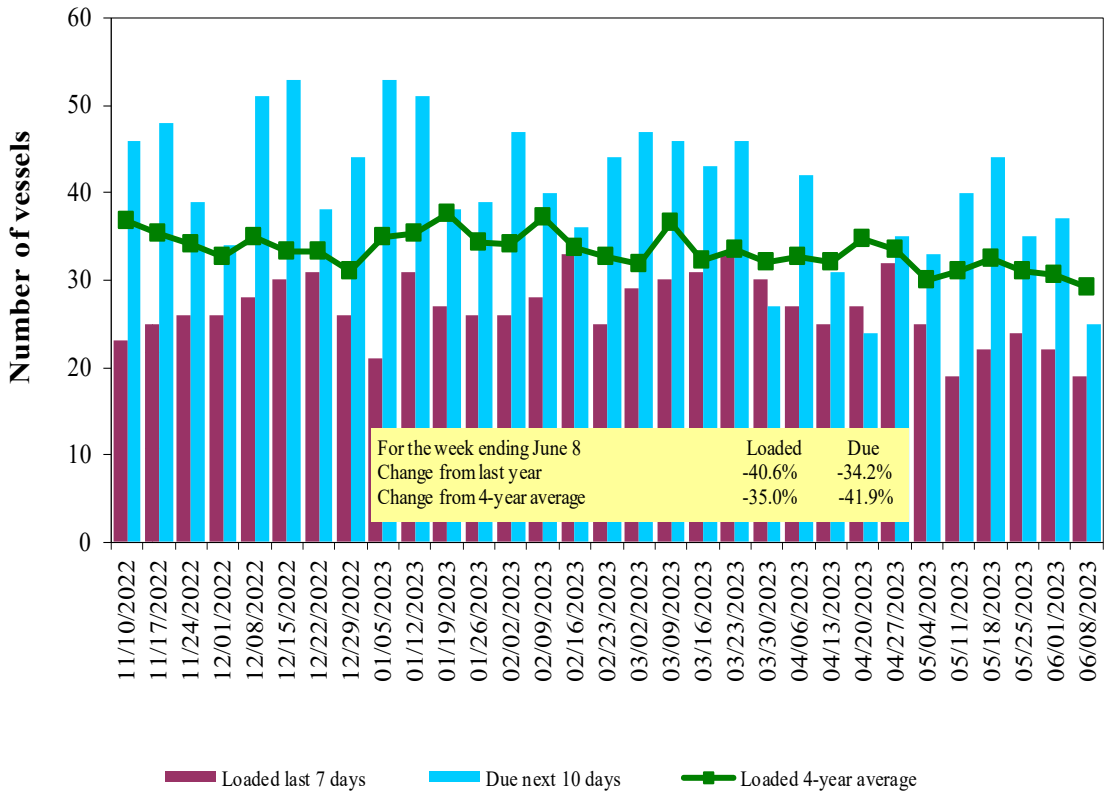
	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
6/8/2023	25	19	25	5
6/1/2023	15	22	37	10
2022 range	(14…61)	(18…39)	(28...62)	(5…23)
2022 average	30	28	44	13

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

Source: USDA, Agricultural Marketing Service.

Figure 15

U.S. Gulf[1] vessel loading activity

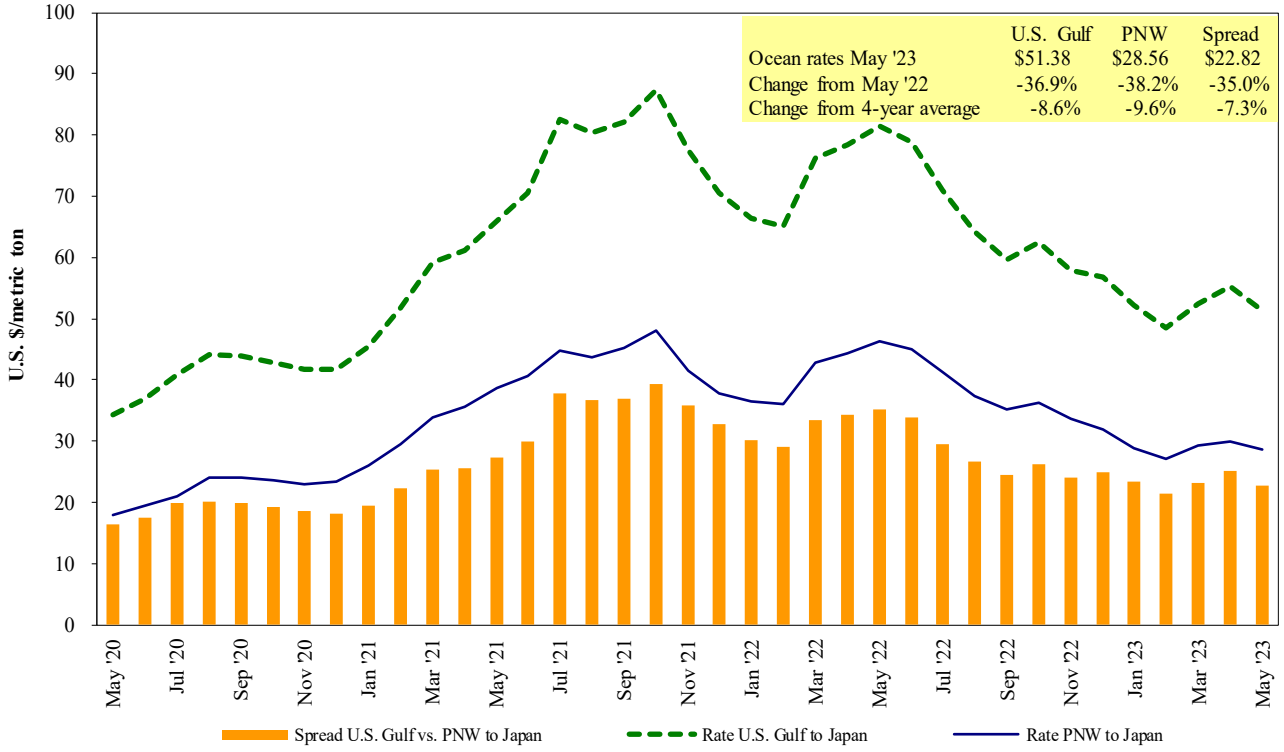


[1]U.S. Gulf includes Mississippi, Texas, and East Gulf.

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 06/10/2023

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	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	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	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

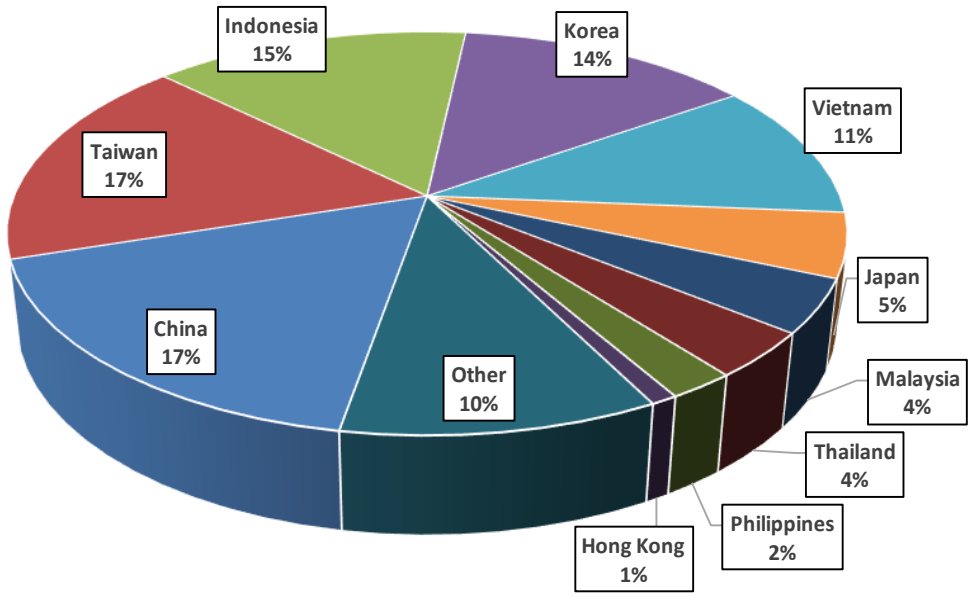
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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.

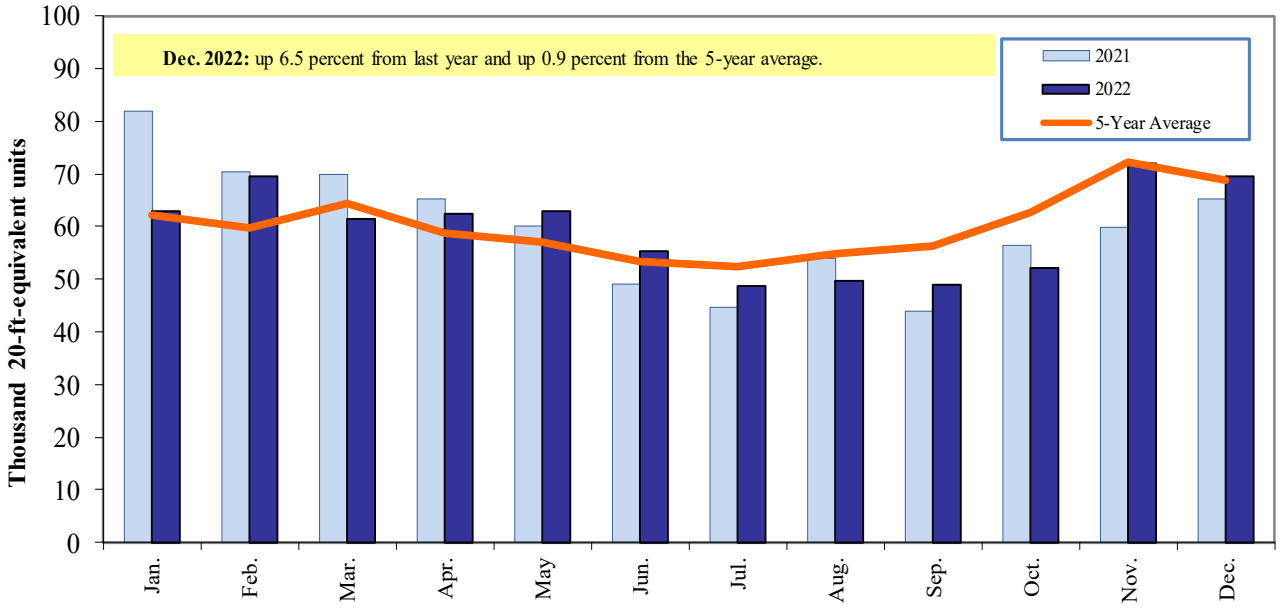
Figure 17
Top 10 destination markets for U.S. containerized grain exports, Jan-Dec 2022



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: 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', '1102', '110220', '110290', '1201', '120100', '120190', '120810', '230210', '230310', '230330', '2304', and '230990'.

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

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