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 July 1, 2021

WEEKLY HIGHLIGHTS

Congress Holds Hearing About Port Congestion, in Support of Agricultural Exporters

On June 15, a U.S. House of Representatives' subcommittee convened a hearing on the impacts of shipping container shortages and increased demand for North American supply chains. The Subcommittee on Coast Guard and Marine Transportation (of the Committee on Transportation and Infrastructure) heard testimony from the Federal Maritime Commission, World Shipping Council, Port of Los Angeles, International Longshore and Warehouse Union, and two agricultural groups—the National Pork Producers Council and Bossco Trading. Among the testimony about ongoing challenges, the two agricultural representatives described the loss of sales and profits due to persistent delays and congestion. The Subcommittee on Coast Guard and Marine Transportation oversees regulation of ocean shipping and unfair foreign shipping practices. See this week's *Grain Transportation Report* feature article for more information.

USDA's $4 Billion Initiative To Bolster Food System Includes Transportation Infrastructure

USDA recently announced its Build Back Better initiative—a plan to invest more than $4 billion to strengthen the U.S. food system, including investments in "distribution and aggregation." The agency notes the system's infrastructure has been stressed during the COVID-19 pandemic because of "long shipping distances and lack of investment in local and regional capacity." USDA intends to invest in distribution-and-aggregation infrastructure that can "remain resilient, flexible, and responsive." Further supporting infrastructure solutions to supply-chain issues, the Secretaries of Agriculture, Transportation, and Commerce will co-chair a new Supply Chain Disruptions task force to bring a "whole of government" response to near-term supply-chain challenges to the economic recovery.

Soybean Inspections Rebound, but Total Inspections Drop Slightly

For the week ending June 17, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions totaled 2.2 million metric tons (mmt). Total grain inspections were down 1 percent from the previous week, down 2 percent from last year, and unchanged from the 3-year average. Soybean inspections jumped 35 percent from the previous week, and wheat increased 10 percent for the same period. Although corn inspections decreased 8 percent from the previous week, year-to-date corn inspections have remained strong, accounting for over 56 percent of total grain inspected year to date, compared to 45 percent at this time last year. Pacific Northwest (PNW) grain inspections decreased 24 percent from the previous week, but Mississippi Gulf grain inspections increased 22 percent for the same period.

Snapshots by Sector

Export Sales

For the week ending June 10, **unshipped balances** of wheat, corn, and soybeans totaled 23.8 million metric tons. This was 7 percent lower than last week, and 1 percent higher than the same time last year. Net **corn export sales** were 0.018 mmt, down 91 percent from the past week. Net **soybean export sales** were 0.065 mmt, up significantly from the previous week. Net weekly **wheat export sales** for marketing year 2021/22, which began June 1, were 0.287 mmt.

Rail

U.S. Class I railroads originated 24,346 **grain carloads** during the week ending June 12. This was a 14-percent increase from the previous week, 14 percent more than last year, and 9 percent more than the 3-year average.

Average July shuttle **secondary railcar** bids/offers (per car) were $276 below tariff for the week ending June 17. This was $36 more than last week and $214 lower than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending June 19, **barged grain movements** totaled 798,250 tons. This was 3 percent less than the previous week and 15 percent lower than the same period last year.

For the week ending June 19, 489 grain barges **moved down river**—34 fewer barges than the previous week. There were 636 grain barges **unloaded in New Orleans**, 11 percent fewer than the previous week.

Ocean

For the week ending June 17, 39 **oceangoing grain vessels** were loaded in the Gulf—26 percent more than the same period last year. Within the next 10 days (starting June 18), 31 vessels were expected to be loaded—18 percent fewer than the same period last year.

As of June 17, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $73.50. This was 8 percent more than the previous week. The rate from PNW to Japan was $42.50 per mt, 9 percent more than the previous week.

Fuel

For the week ending June 21, the U.S. average **diesel fuel price** increased 0.1 cents from the previous week to $3.287 per gallon, 86.2 cents above the same week last year.

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Containerized Grain Update: Exports Stay Strong Despite Record Congestion at Ports

Defying the odds, containerized agricultural exports (including grain) have held strong over the past year. Despite ongoing extreme export challenges, containerized grain exports actually increased 32 percent in first quarter 2021 over the previous 4-year average (table 1). This article explains the persistent export challenges, breaks down recent containerized grain export numbers by commodity, and describes possible steps forward.

Ongoing Extreme Congestion at Ports and Beyond

Over the past 11 months, the deluge of containerized imports to the United States has made it extremely difficult to export containerized products—including agricultural products. Record-high volumes of import containers have clogged the country's busiest container ports, delaying the loading and unloading of vessels, as well as delivery and receipt of containers. The excessive volumes of import containers have stressed nearly every segment of the supply chain, including warehousing, trucking, rail service, inland and ocean terminals, container availability, and vessel service. Stresses posed by the excessive volumes have created unprecedented challenges to securing ocean service, finding available containers, and absorbing rising freight rates and ancillary charges.

The most severe congestion persists at the ports of Los Angeles, Long Beach, and Oakland, CA, though other regions—such as Savannah, GA—have had periodic vessel backlogs as well. As a result, at the ports of Oakland, Los Angeles, and Long Beach, CA, vessels now typically wait in the harbor from 5 days to 3 weeks before being allowed to berth. Ongoing congestion and its ripple effects manifest in other ways as well:

- Port congestion and slow container turnarounds inside the terminals have exacerbated the on-going truck driver shortage.
- Further adding to congestion, marine terminal operators are operating with a severe shortage of railcars (relative to demand) for transferring containers from ocean vessels to trains.
- The spike in intermodal container traffic over the past several weeks has caused railroads to run out of track storage capacity once the traffic reaches Chicago because unloading capacity in Chicago has been exceeded.

2021 Containerized Grain Export Volumes

As noted previously, despite multiple challenges, first-quarter 2021 containerized grain exports grew substantially. In first quarter 2021, soybeans represented 52 percent of containerized grain exports and increased 68 percent from the 4-year average. With similarly significant jumps, containerized exports of corn rose 72 percent, and animal feed rose 44 percent from the 4-year average. The shipments represented in these data were likely hard won, accomplished despite grain shippers' difficulties in retaining ocean container service.

Table 1. January to March 2021 containerized grain exports

Commodity	Metric tons	TEU	% change from 4-year avg.	% of total Q1 2021
Soybeans	1,439,352	108,778	68%	52%
Distillers' dried grains (DDGS)	677,451	54,288	4%	24%
Corn	329,417	25,434	72%	12%
Animal feed	279,400	24,448	44%	10%
Residues of starch manufacturing	22,305	1,784	-41%	1%
Other	26,699	2,296	-84%	1%
Total	**2,774,624**	**217,028**	**32%**	**100%**

Note: TEU = 20-foot equivalent units; avg. = average. Data for second-quarter 2021 are not yet available.

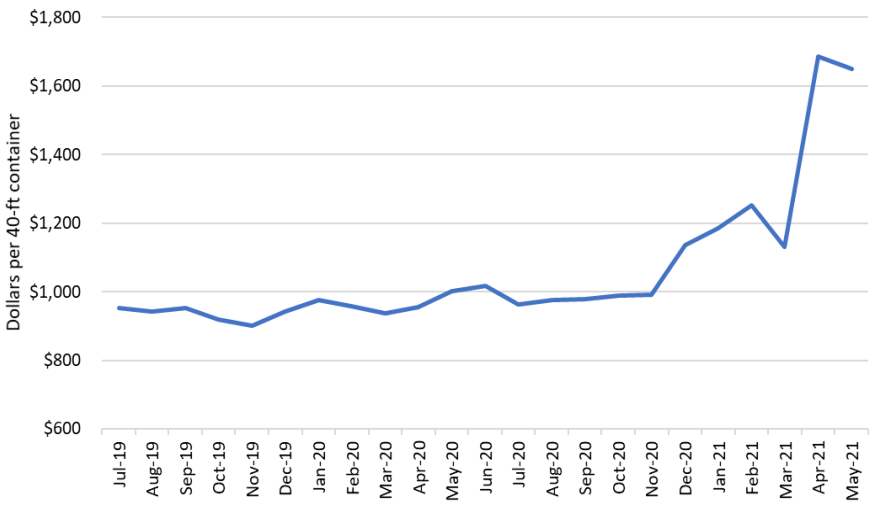
Source: IHS Markit/PIERS

Challenges to Trade

According to exporters' reports to USDA, the challenges start right from the beginning of a shipment—i.e., finding a carrier that will offer an export booking, given the overall tight container service capacity. Next, shippers face unreliable vessel schedules. (Particularly, between Asia and the United States, scheduling reliability is at an all-time low.) Amid the constant vessel schedule changes, container deliveries arrive to port either too early or too late, thereby incurring detention and demurrage fees. Unfairly (in shippers' eyes), these fees are assessed even when vessel delays or port congestion prevents exporters from accessing the terminal. In some cases, an export booking gets pushed to the next available vessel or even canceled. In such cases, exporters receive little to no notice, causing yet more delays and fees. Finally, shipment arrivals to overseas buyers are often delayed. The delay to a buyer sometimes results in in-transit product spoilage, making the U.S. exporter appear unreliable.

Behind this turmoil, freight rates have risen significantly. On average, containerized export (transpacific) freight rates increased 14 percent between November 2020 and March 2021. Then, from March to April, rates jumped nearly 50 percent (fig. 1).

Figure 1. Index of U.S. containerized export ocean freight rates



Note: Data reflect spot market rates, not contracted rates, which are confidential. Rates represent all exports, not specifically agricultural shipments.
Source: Drewry Transpacific Westbound Rate Index History, Drewry Supply Chain Advisors, Container Freight Rate Insight.

Overall, the main bottleneck appears to be at U.S. ports. There, congestion stresses multiple segments of the supply chain—such as drayage, trucks, storage capacity, and railroads—where they converge in servicing the ports. Additionally, available capacity in each of these services has been exceeded. When the system as a whole operates without any slack capacity (as has occurred for the last year or so), the resulting congestion compounds itself at all points of the supply chain.

Possible Ways Forward

Most indicators point toward port congestion lasting for many more months with no clear end in sight. As such, several solutions have been proposed by both Congress and industry representatives, but it is unclear what course of action will be taken. Congress recently convened a hearing on June 15 specifically to address exporters' supply-chain issues and is considering changes to the Federal Maritime Commission's authorizing legislation, also known as the Shipping Act of 1984 to give FMC more authority to address these issues when they arise. In addition, exporters have asked Federal Agencies to work with the port authorities and longshore labor unions to extend truck gate hours at the ports (Los Angeles and Long Beach, in particular). Such actions would aim to increase fluidity and reduce congestion. April.Taylor@usda.gov

Grain Transportation Indicators

Table 1

Grain transport cost indicators[1]

	Truck	Rail		Barge	Ocean	
For the week ending		Non-Shuttle	Shuttle		Gulf	Pacific
06/23/21	221	291	212	164	329	301
06/16/21	221	291	211	169	304	277

[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.
Source: USDA, Agricultural Marketing Service.

Table 2

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

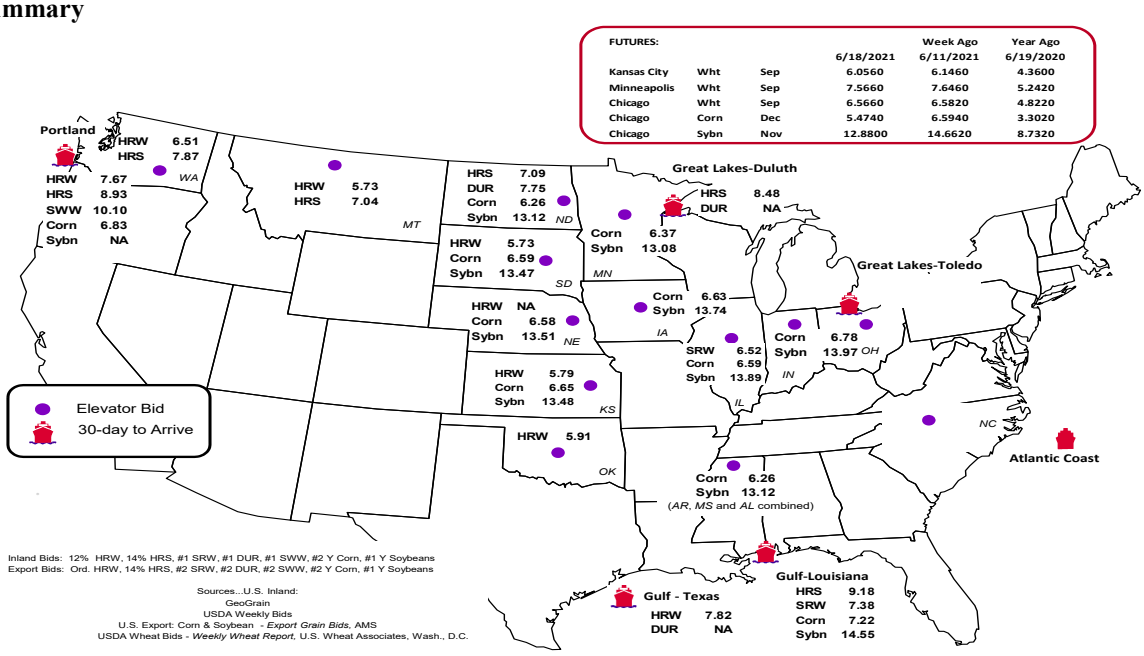
Commodity	Origin–destination	6/18/2021	6/11/2021
Corn	IL–Gulf	-0.63	-0.63
Corn	NE–Gulf	-0.64	-0.68
Soybean	IA–Gulf	-0.81	-0.64
HRW	KS–Gulf	-2.03	-2.12
HRS	ND–Portland	-1.84	-1.73

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

Rail deliveries to port (carloads)[1]

For the week ending	Mississippi Gulf	Texas Gulf	Pacific Northwest	Atlantic & East Gulf	Total	Week ending	Cross-border Mexico[3]
6/16/2021[p]	442	1,188	4,701	0	6,331	6/12/2021	2,870
6/09/2021[r]	530	959	5,034	0	6,523	6/5/2021	2,699
2021 YTD[r]	34,071	37,314	156,407	9,887	237,679	2021 YTD	66,069
2020 YTD[r]	10,074	20,095	111,494	4,852	146,515	2020 YTD	56,843
2021 YTD as % of 2020 YTD	338	186	140	204	162	% change YTD	116
Last 4 weeks as % of 2020[2]	207	108	113	10	113	Last 4wks. % 2020	130
Last 4 weeks as % of 4-year avg.[2]	112	106	93	8	94	Last 4wks. % 4 yr.	127
Total 2020	45,294	64,116	299,882	24,458	433,750	Total 2020	126,407
Total 2019	40,974	51,167	251,181	16,192	359,514	Total 2019	127,622

[1]Data is incomplete as it is voluntarily provided.

[2] Compared with same 4-weeks in 2020 and prior 4-year average.

[3] Cross-border weekly data is approximately 15 percent below the Association of American Railroads' reported weekly carloads received by Mexican railroads. to reflect switching between Kansas City Southern de Mexico (KCSM) and Grupo Mexico.

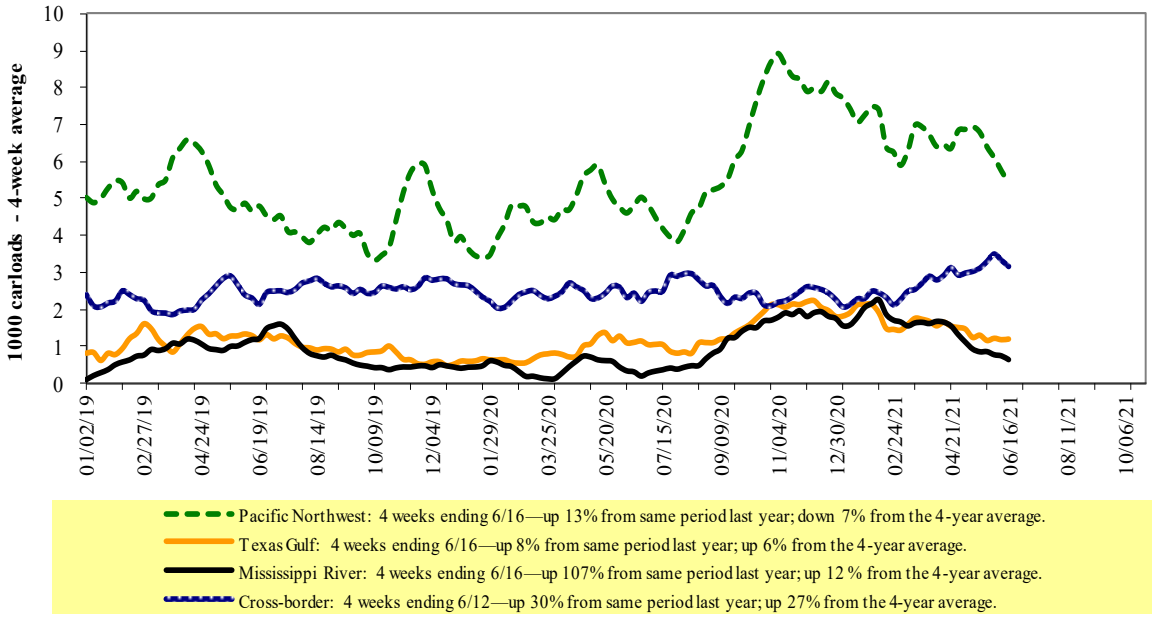
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available; wks. = weeks; avg. = average.

Source: USDA, Agricultural Marketing Service.

Railroads originate approximately 24 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 2

Rail deliveries to port



Source: USDA, Agricultural Marketing Service.

Table 4

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

For the week ending:	East		West			U.S. total	Canada	
6/12/2021	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,741	2,664	13,065	1,525	5,351	24,346	4,069	3,907
This week last year	1,384	2,660	10,971	873	5,492	21,380	3,806	4,968
2021 YTD	45,521	60,130	298,222	25,485	151,154	580,512	108,216	123,417
2020 YTD	40,559	55,563	256,687	24,804	119,130	496,743	93,014	105,090
2021 YTD as % of 2020 YTD	112	108	116	103	127	117	116	117
Last 4 weeks as % of 2020*	109	120	110	131	113	113	88	94
Last 4 weeks as % of 3-yr. avg.**	104	105	104	125	121	109	90	98
Total 2020	91,659	130,521	613,630	57,782	296,701	1,190,293	238,683	261,778

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

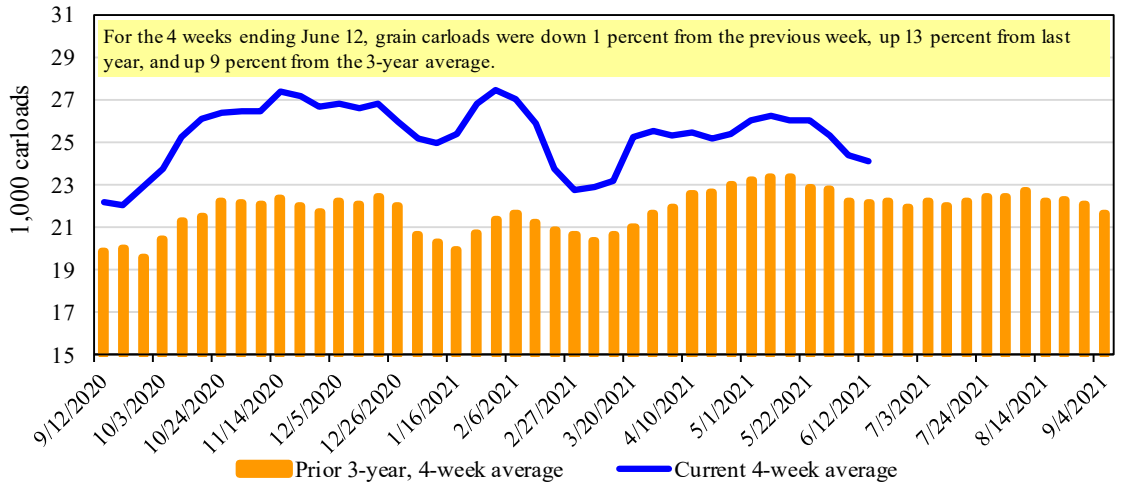
**The past 4 weeks as a percent of the same period from the prior 3-year average. YTD = year-to-date; avg. = average; yr. = year.

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

Source: Association of American Railroads.

Figure 3

Total weekly U.S. Class I railroad grain carloads



Source: Association of American Railroads.

Table 5

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

For the week ending:		Delivery period							
6/17/2021		Jul-21	Jul-20	Aug-21	Aug-20	Sep-21	Sep-20	Oct-21	Oct-20
BNSF[3]	COT grain units	no bids	0	0	no bids	0	no bids	no bids	no bids
	COT grain single-car	0	0	0	no bids	0	0	4	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 bid	no offer	no bid	no offer	no bid	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.

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

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

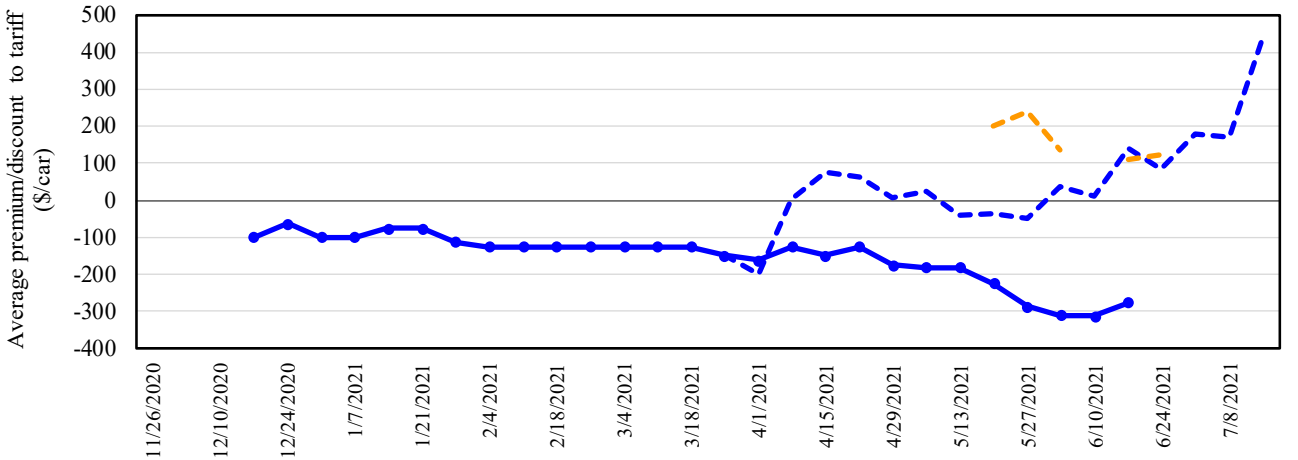
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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 4
Bids/offers for railcars to be delivered in July 2021, secondary market

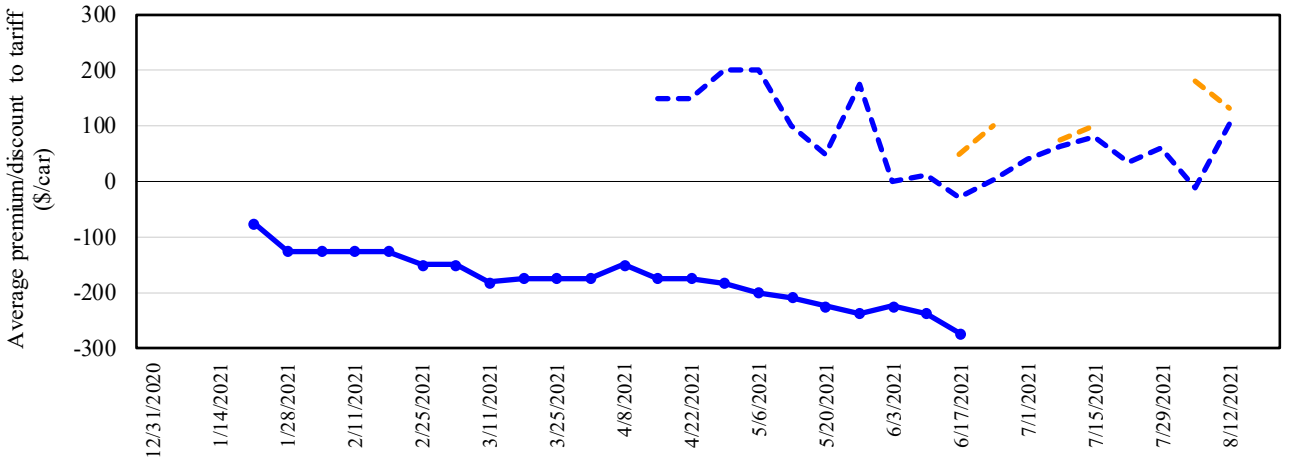


6/17/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	-$308	-$244

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers rose $36 this week and are $214 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
Bids/offers for railcars to be delivered in August 2021, secondary market



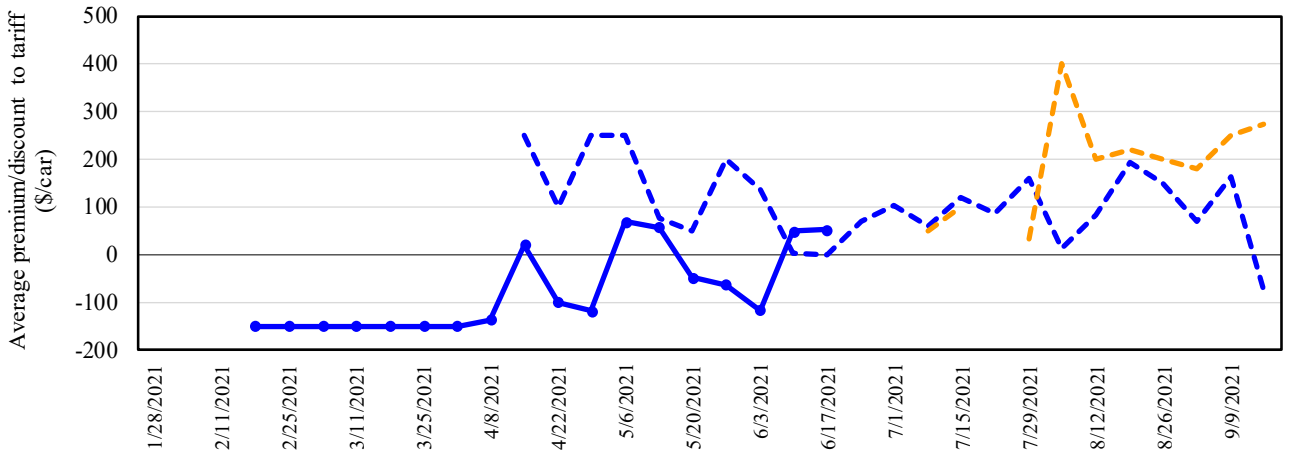
6/17/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	-$308	-$238

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers fell $35 this week and are $198 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 6

Bids/offers for railcars to be delivered in September 2021, secondary market



6/17/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$306	-$200

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers rose $5 this week and are $16 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 6

Weekly secondary railcar market ($/car)[1]

	For the week ending: 6/17/2021	Delivery period					
		Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Non-shuttle	**BNSF-GF**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
	Change from same week 2020	n/a	n/a	n/a	n/a	n/a	n/a
	UP-Pool	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
	Change from same week 2020	n/a	n/a	n/a	n/a	n/a	n/a
Shuttle	**BNSF-GF**	**(308)**	**(308)**	**306**	**750**	**n/a**	**n/a**
	Change from last week	(58)	(58)	10	75	n/a	n/a
	Change from same week 2020	(158)	(258)	276	n/a	n/a	n/a
	UP-Pool	**(244)**	**(238)**	**(200)**	**433**	**100**	**n/a**
	Change from last week	131	(13)	0	0	n/a	n/a
	Change from same week 2020	(269)	(206)	(169)	83	(250)	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.

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

Source: USDA, Agricultural Marketing Service.

The **tariff rail rate** is the base price of freight rail service. Together with **fuel surcharges** and any **auction and secondary rail** values, the tariff rail rate constitutes the full cost of shipping by rail. Typically, auction and secondary rail values are a small fraction of the full cost of shipping by rail relative to the tariff rate. However, during times of high rail demand or short supply, high auction and secondary rail values can exceed the cost of the tariff rate plus fuel surcharge.

Table 7

Tariff rail rates for unit and shuttle train shipments[1]

June 2021	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	$3,695	$106	$37.75	$1.03	5
	Grand Forks, ND	Duluth-Superior, MN	$4,208	$0	$41.79	$1.14	-3
	Wichita, KS	Los Angeles, CA	$7,115	$0	$70.66	$1.92	-2
	Wichita, KS	New Orleans, LA	$4,525	$187	$46.79	$1.27	3
	Sioux Falls, SD	Galveston-Houston, TX	$6,851	$0	$68.03	$1.85	-2
	Colby, KS	Galveston-Houston, TX	$4,801	$205	$49.71	$1.35	3
	Amarillo, TX	Los Angeles, CA	$5,121	$285	$53.68	$1.46	3
Corn	Champaign-Urbana, IL	New Orleans, LA	$3,900	$211	$40.83	$1.04	3
	Toledo, OH	Raleigh, NC	$7,833	$0	$77.79	$1.98	15
	Des Moines, IA	Davenport, IA	$2,455	$45	$24.82	$0.63	3
	Indianapolis, IN	Atlanta, GA	$5,979	$0	$59.37	$1.51	3
	Indianapolis, IN	Knoxville, TN	$5,040	$0	$50.05	$1.27	3
	Des Moines, IA	Little Rock, AR	$3,900	$131	$40.03	$1.02	5
	Des Moines, IA	Los Angeles, CA	$5,780	$383	$61.20	$1.55	6
Soybeans	Minneapolis, MN	New Orleans, LA	$3,631	$218	$38.22	$1.04	4
	Toledo, OH	Huntsville, AL	$6,595	$0	$65.49	$1.78	17
	Indianapolis, IN	Raleigh, NC	$7,125	$0	$70.75	$1.93	3
	Indianapolis, IN	Huntsville, AL	$5,247	$0	$52.11	$1.42	3
	Champaign-Urbana, IL	New Orleans, LA	$4,645	$211	$48.23	$1.31	3
Shuttle train							
Wheat	Great Falls, MT	Portland, OR	$4,018	$0	$39.90	$1.09	-3
	Wichita, KS	Galveston-Houston, TX	$4,236	$0	$42.07	$1.14	-3
	Chicago, IL	Albany, NY	$6,376	$0	$63.32	$1.72	-10
	Grand Forks, ND	Portland, OR	$5,676	$0	$56.37	$1.53	-2
	Grand Forks, ND	Galveston-Houston, TX	$5,996	$0	$59.54	$1.62	-2
	Colby, KS	Portland, OR	$6,012	$336	$63.04	$1.72	3
Corn	Minneapolis, MN	Portland, OR	$5,180	$0	$51.44	$1.31	0
	Sioux Falls, SD	Tacoma, WA	$5,140	$0	$51.04	$1.30	0
	Champaign-Urbana, IL	New Orleans, LA	$3,820	$211	$40.03	$1.02	3
	Lincoln, NE	Galveston-Houston, TX	$3,880	$0	$38.53	$0.98	0
	Des Moines, IA	Amarillo, TX	$4,320	$165	$44.54	$1.13	5
	Minneapolis, MN	Tacoma, WA	$5,180	$0	$51.44	$1.31	0
	Council Bluffs, IA	Stockton, CA	$5,100	$0	$50.65	$1.29	2
Soybeans	Sioux Falls, SD	Tacoma, WA	$5,850	$0	$58.09	$1.58	0
	Minneapolis, MN	Portland, OR	$5,900	$0	$58.59	$1.59	0
	Fargo, ND	Tacoma, WA	$5,750	$0	$57.10	$1.55	0
	Council Bluffs, IA	New Orleans, LA	$4,875	$244	$50.83	$1.38	3
	Toledo, OH	Huntsville, AL	$4,945	$0	$49.11	$1.34	3
	Grand Island, NE	Portland, OR	$5,260	$344	$55.65	$1.51	4

[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 8

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

Date: June 2021							
Commodity	Origin state	Destination region	Tariff rate per car[1]	Fuel surcharge per car[2]	Tariff rate plus fuel surcharge per: metric ton[3]	bushel[3]	Percent change[4] Y/Y
Wheat	MT	Chihuahua, CI	$7,384	$0	$75.45	$2.05	-2
	OK	Cuautitlan, EM	$6,813	$146	$71.10	$1.93	2
	KS	Guadalajara, JA	$7,531	$697	$84.08	$2.29	5
	TX	Salinas Victoria, NL	$4,347	$89	$45.33	$1.23	2
Corn	IA	Guadalajara, JA	$8,902	$593	$97.01	$2.46	3
	SD	Celaya, GJ	$8,140	$0	$83.17	$2.11	0
	NE	Queretaro, QA	$8,300	$304	$87.91	$2.23	3
	SD	Salinas Victoria, NL	$6,905	$0	$70.55	$1.79	0
	MO	Tlalnepantla, EM	$7,665	$297	$81.34	$2.06	3
	SD	Torreon, CU	$7,690	$0	$78.57	$1.99	0
Soybeans	MO	Bojay (Tula), HG	$8,547	$557	$93.01	$2.53	3
	NE	Guadalajara, JA	$9,157	$580	$99.49	$2.70	3
	IA	El Castillo, JA	$9,410	$0	$96.15	$2.61	-1
	KS	Torreon, CU	$8,014	$400	$85.96	$2.34	3
Sorghum	NE	Celaya, GJ	$7,772	$523	$84.76	$2.15	4
	KS	Queretaro, QA	$8,108	$183	$84.71	$2.15	1
	NE	Salinas Victoria, NL	$6,713	$147	$70.08	$1.78	1
	NE	Torreon, CU	$7,092	$364	$76.18	$1.93	3

[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.

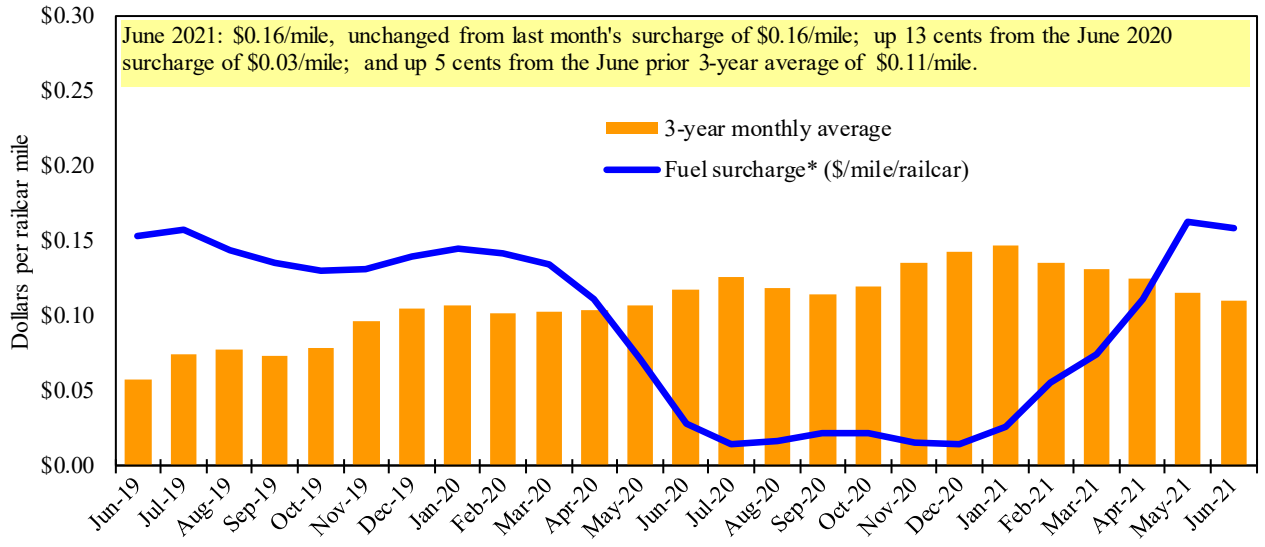
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

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

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

Figure 7

Railroad fuel surcharges, North American weighted average[1]



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

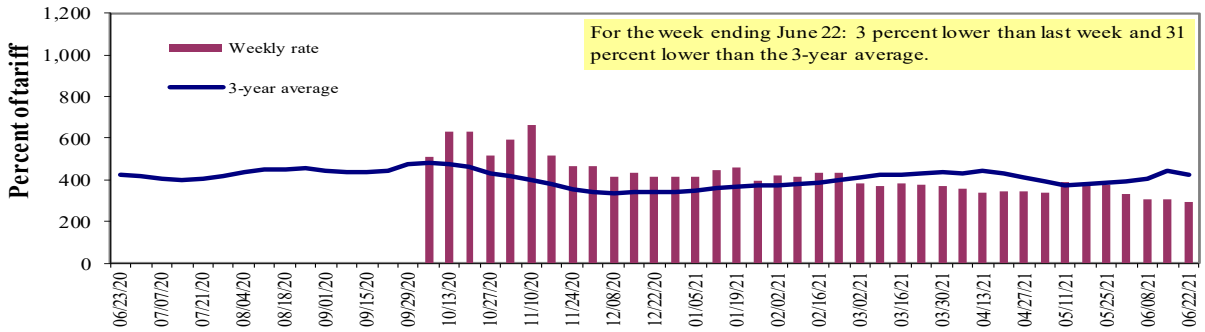
* Beginning January 2009, the Canadian Pacific fuel surcharge is computed by a monthly average of the bi-weekly fuel surcharge.

**CSX strike price changed from $2.00/gal. to $3.75/gal. starting January 1, 2015.

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

Barge Transportation

Figure 8
Illinois River barge freight rate[1,2,3]



[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-week moving average of the 3-year average.
[3]No rates data from 06/23/20 to 9/29/20 due to the lock closure for rehabilitation and replacement of lock machinery.
Source: USDA, Agricultural Marketing Service.

Table 9
Weekly barge freight rates: Southbound only

		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate[1]	6/22/2021	413	303	295	203	226	226	200
	6/15/2021	439	311	304	209	241	241	200
$/ton	6/22/2021	25.56	16.12	13.69	8.10	10.60	9.13	6.28
	6/15/2021	27.17	16.55	14.11	8.34	11.30	9.74	6.28
Current week % change from the same week:								
	Last year	13	7	-	1	23	23	10
	3-year avg. [2]	-10	-29	-31	-32	-21	-21	-23
Rate[1]	July	400	303	294	203	226	226	200
	September	514	471	462	421	456	456	400

[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-week moving average; ton = 2,000 pounds; "-" not available due to lock closure.
Source: USDA, Agricultural Marketing Service.

Figure 9
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

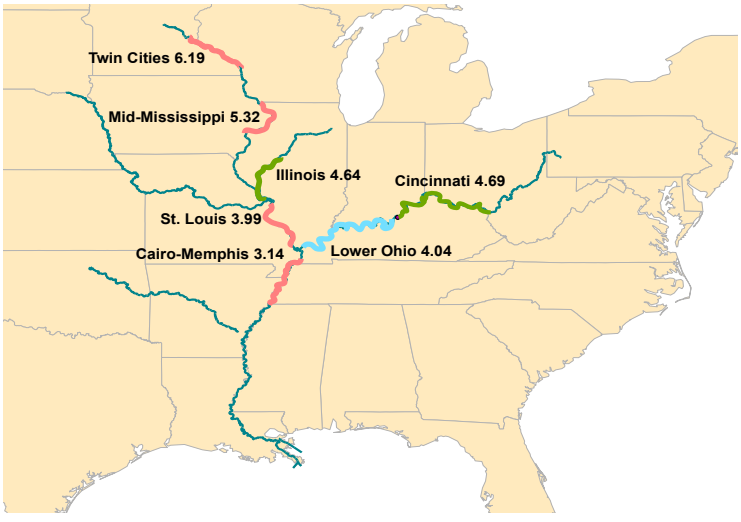
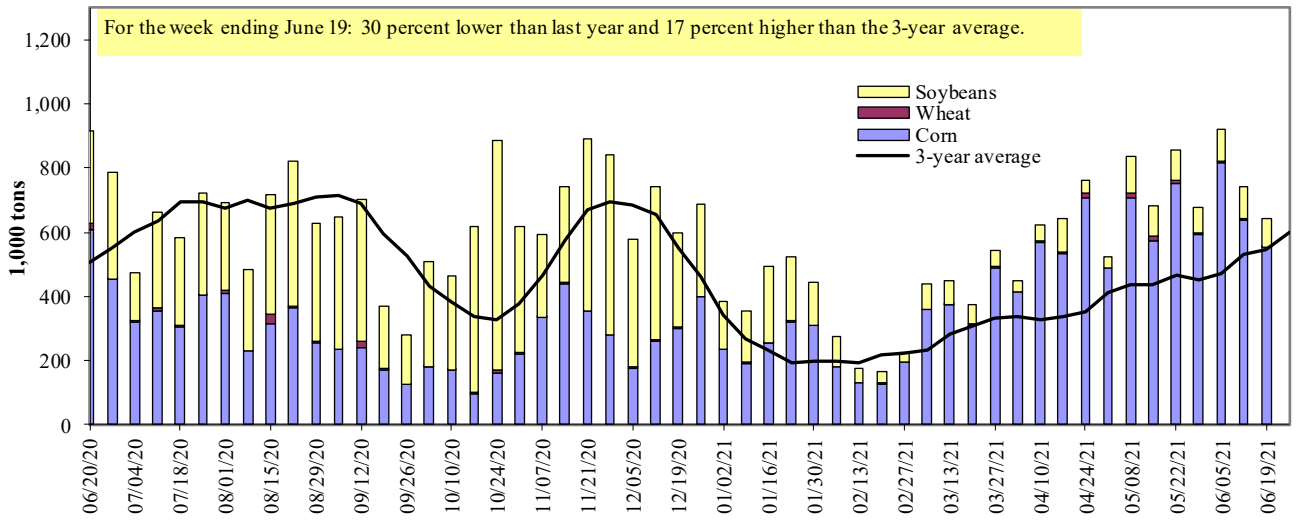


Figure 10

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



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

Source: U.S. Army Corps of Engineers.

Table 10

Barge grain movements (1,000 tons)

For the week ending 06/19/2021	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	319	5	29	0	352
Winfield, MO (L25)	495	2	57	0	553
Alton, IL (L26)	585	3	97	0	685
Granite City, IL (L27)	552	3	85	3	643
Illinois River (La Grange)	76	2	39	0	116
Ohio River (Olmsted)	47	5	44	18	114
Arkansas River (L1)	0	36	6	0	41
Weekly total - 2021	599	44	134	21	798
Weekly total - 2020	584	47	312	0	943
2021 YTD[1]	14,864	633	4,257	189	19,943
2020 YTD[1]	8,378	754	5,294	51	14,477
2021 as % of 2020 YTD	177	84	80	374	138
Last 4 weeks as % of 2020[2]	125	74	49	114	100
Total 2020	18,942	1,765	19,205	237	40,149

[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.

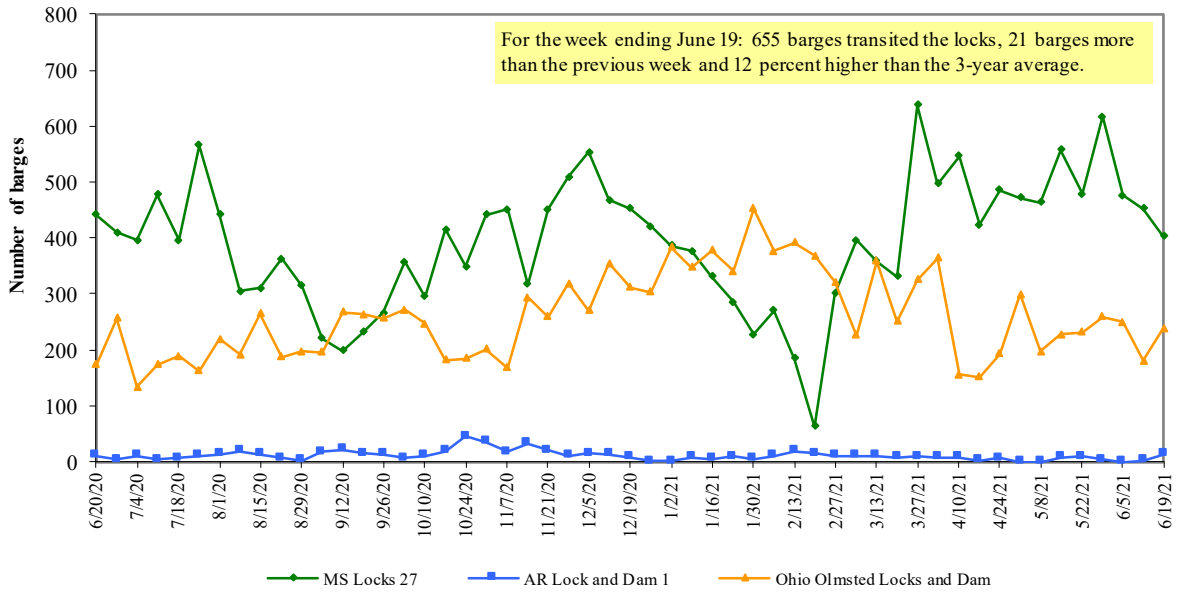
[2] As a percent of same period in 2020.

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

Source: U.S. Army Corps of Engineers.

Figure 11

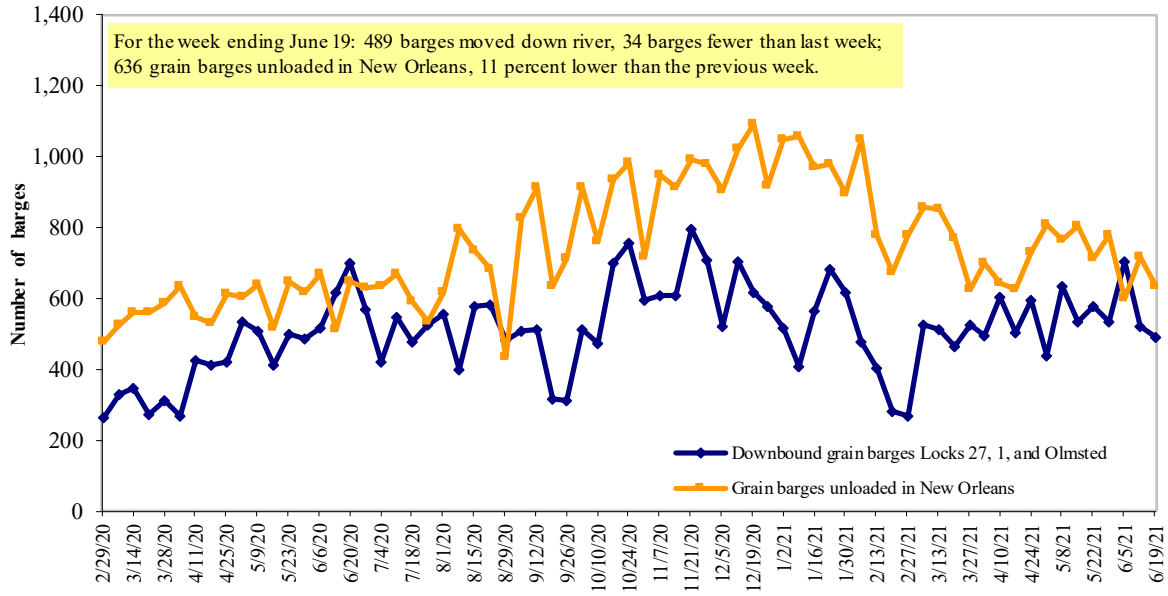
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



Source: U.S. Army Corps of Engineers.

Figure 12

Grain barges for export in New Orleans region



Note: Olmsted = Olmsted Locks and Dam.

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 11

Retail on-highway diesel prices, week ending 6/21/2021 (U.S. $/gallon)

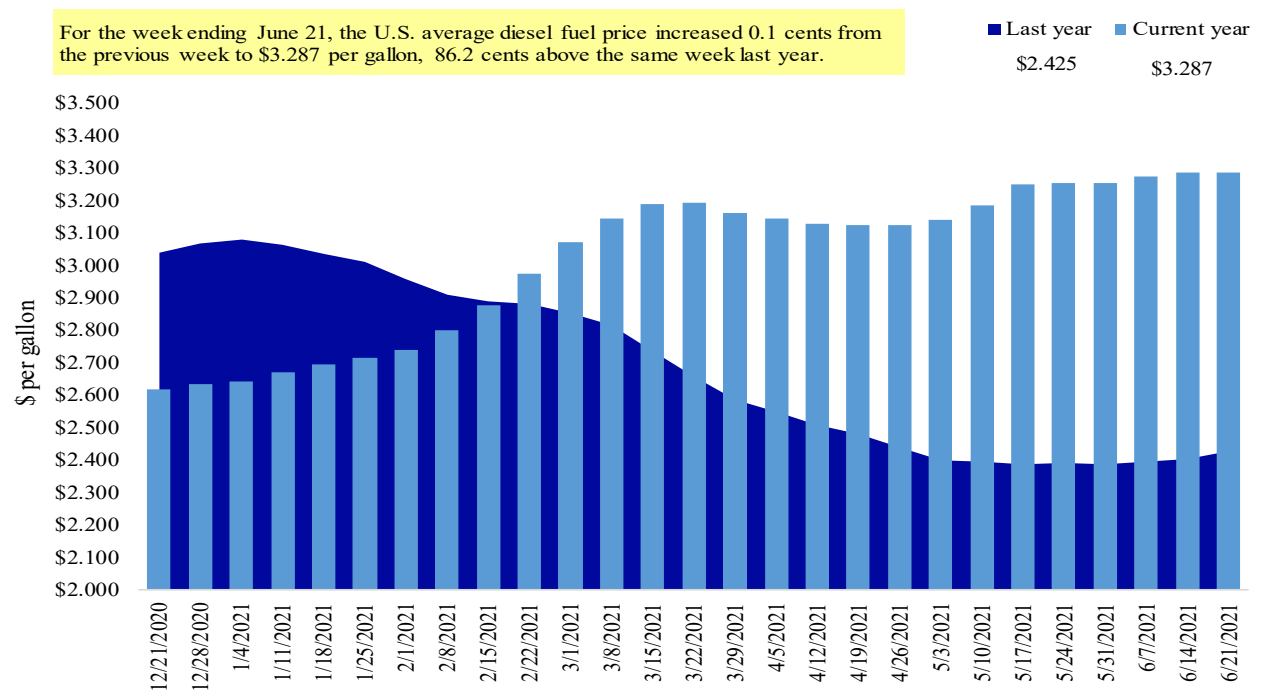
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.275	0.000	0.760
	New England	3.213	0.010	0.582
	Central Atlantic	3.441	0.006	0.747
	Lower Atlantic	3.175	-0.006	0.805
II	Midwest	3.231	-0.002	0.942
III	Gulf Coast	3.042	0.002	0.845
IV	Rocky Mountain	3.393	0.011	1.040
V	West Coast	3.809	0.007	0.864
	West Coast less California	3.462	-0.003	0.871
	California	4.099	0.015	0.862
Total	United States	3.287	0.001	0.862

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

Source: U.S. Department of Energy, Energy Information Administration.

Figure 13

Weekly diesel fuel prices, U.S. average



Source: U.S. Department of Energy, Energy Information Administration, Retail On-Highway Diesel Prices.

Grain Exports

Table 12

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]									
6/10/2021	1,587	1,016	1,642	1,112	8	5,365	14,743	3,725	23,832
This week year ago	2,039	571	1,767	1,059	238	5,674	10,361	7,593	23,629
Cumulative exports-marketing year[2]									
2020/21 YTD	210	5	85	109	26	435	54,573	57,893	112,901
2019/20 YTD	289	18	130	175	49	659	31,130	36,385	68,174
YTD 2020/21 as % of 2019/20	73	26	66	62	54	66	175	159	166
Last 4 wks. as % of same period 2019/20*	50	100	60	69	11	60	165	52	104
Total 2019/20	9,526	2,318	6,960	4,751	922	24,477	42,622	43,994	111,094
Total 2018/19	8,591	3,204	6,776	5,164	479	24,214	48,924	46,189	119,327

[1] Current unshipped (outstanding) export sales to date.

[2] Shipped export sales to date; 2021/22 marketing year now in effect for wheat while corn and soybeans remain in effect for the 2020/21 marketing year.

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 13

Top 5 importers[1] of U.S. corn

For the week ending 06/10/2021	Total commitments[2]			% change	Exports[3]
	2021/22 next MY	2020/21 current MY	2019/20 last MY	current MY from last MY	3-yr. avg. 2017-19
			- 1,000 mt -		
Mexico	1,973	14,683	13,692	7	14,869
Japan	775	10,335	9,325	11	11,221
Columbia	0	3,848	4,169	(8)	4,830
Korea	0	3,528	2,502	41	4,011
China	10,744	23,227	1,269	1,730	909
Top 5 importers	**13,492**	**55,621**	**30,958**	**80**	**35,840**
Total U.S. corn export sales	**15,370**	**69,316**	**41,491**	**67**	**49,983**
% of projected exports	25%	96%	92%		
Change from prior week[2]	**276**	**18**	**358**		
Top 5 importers' share of U.S. corn export sales	88%	80%	75%		72%
USDA forecast June 2021	**62,341**	**72,519**	**45,242**	**60**	
Corn use for ethanol USDA forecast, June 2021	**132,080**	**128,270**	**123,368**	**4**	

[1]Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2019/20; 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.

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

Source: USDA, Foreign Agricultural Service.

Table 14

Top 5 importers[1] of U.S. soybeans

For the week ending 06/10/2021	Total commitments[2]			% change current MY from last MY	Exports[3] 3-yr. avg. 2017-19
	2021/22 next MY	2020/21 current MY	2019/20 last MY		
			1,000 mt -		- 1,000 mt -
China	3,049	35,712	15,603	129	19,106
Mexico	509	4,749	4,542	5	4,591
Egypt	0	2,777	3,339	(17)	2,980
Indonesia	1	2,185	1,891	16	2,360
Japan	74	2,191	2,317	(5)	2,288
Top 5 importers	**3,633**	**47,613**	**27,691**	**72**	**31,324**
Total U.S. soybean export sales	**7,562**	**61,618**	**43,978**	**40**	**49,352**
% of projected exports	13%	99%	96%		
change from prior week[2]	**7**	**65**	**538**		
Top 5 importers' share of U.S. soybean export sales	48%	77%	63%		**63%**
USDA forecast, June 2021	**56,540**	**62,125**	**45,831**	**136**	

[1]Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2019/20; marketing year (MY) = Sep 1 - Aug 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 previous week's outstanding sales 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; mt = metric ton.

Source: USDA, Foreign Agricultural Service.

Table 15

Top 10 importers[1] of all U.S. wheat

For the week ending 06/10/2021	Total Commitments[2]		% change current MY from last MY	Exports[3] 3-yr. avg. 2018-20
	2021/22 current MY	2020/21 last MY		
		1,000 mt -		- 1,000 mt -
Mexico	907	469	93	3,388
Philippines	888	1,009	(12)	3,121
Japan	531	594	(11)	2,567
Korea	367	437	(16)	1,501
Nigeria	462	257	80	1,490
China	267	548	(51)	1,268
Taiwan	183	262	(30)	1,187
Indonesia	62	179	(65)	1,131
Thailand	115	169	(32)	768
Italy	37	153	(76)	681
Top 10 importers	**3,818**	**4,076**	(6)	**17,102**
Total U.S. wheat export sales	**5,800**	**6,333**	(8)	**24,617**
% of projected exports	24%	24%		
change from prior week[2]	**287**	**505**		
Top 10 importers' share of U.S. wheat export sales	66%	64%		69%
USDA forecast, June 2021	**24,523**	**26,839**	(9)	

[1] Based on USDA, Foreign Agricultural Service(FAS) marketing year ranking reports for 2020/21; 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 final 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 16

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

Port regions	For the week ending 06/17/21	Previous week*	Current week as % of previous	2021 YTD*	2020 YTD*	2021 YTD as % of 2020 YTD	Last 4-weeks as % of: Last year	Last 4-weeks as % of: Prior 3-yr. avg.	2020 total*
Pacific Northwest									
Wheat	277	287	96	7,807	7,536	104	77	96	15,966
Corn	323	497	65	10,330	4,811	215	138	133	9,969
Soybeans	0	0	n/a	3,678	2,736	134	278	2	14,028
Total	**599**	**784**	**76**	**21,815**	**15,082**	**145**	**107**	**99**	**39,963**
Mississippi Gulf									
Wheat	68	5	n/a	1,148	1,819	63	52	75	3,422
Corn	939	845	111	24,556	14,429	170	151	159	28,781
Soybeans	114	70	164	10,202	10,216	100	38	31	38,013
Total	**1,120**	**920**	**122**	**35,906**	**26,464**	**136**	**112**	**113**	**70,215**
Texas Gulf									
Wheat	195	176	111	1,831	2,004	91	88	89	4,248
Corn	31	0	n/a	270	374	72	76	51	723
Soybeans	0	0	n/a	656	7	n/a	n/a	0	2,098
Total	**226**	**176**	**129**	**2,758**	**2,384**	**116**	**87**	**81**	**7,068**
Interior									
Wheat	17	35	50	1,296	1,114	116	113	144	2,263
Corn	163	241	68	4,539	3,912	116	125	121	8,683
Soybeans	53	59	90	3,030	3,069	99	88	70	7,274
Total	**234**	**334**	**70**	**8,865**	**8,095**	**110**	**112**	**105**	**18,220**
Great Lakes									
Wheat	20	20	99	229	299	77	77	69	891
Corn	0	0	n/a	32	0	n/a	n/a	0	111
Soybeans	13	0	n/a	26	61	42	29	17	1,111
Total	**33**	**21**	**160**	**286**	**359**	**80**	**62**	**41**	**2,113**
Atlantic									
Wheat	0	2	0	74	5	n/a	54	161	65
Corn	0	0	n/a	14	8	174	n/a	0	33
Soybeans	4	8	56	1,040	400	260	95	46	1,870
Total	**4**	**10**	**43**	**1,128**	**414**	**273**	**90**	**42**	**1,968**
U.S. total from ports*									
Wheat	577	526	110	12,386	12,777	97	78	93	26,854
Corn	1,456	1,582	92	39,741	23,534	169	143	143	48,301
Soybeans	184	136	135	18,632	16,488	113	52	33	64,394
Total	**2,217**	**2,245**	**99**	**70,759**	**52,799**	**134**	**108**	**103**	**139,548**

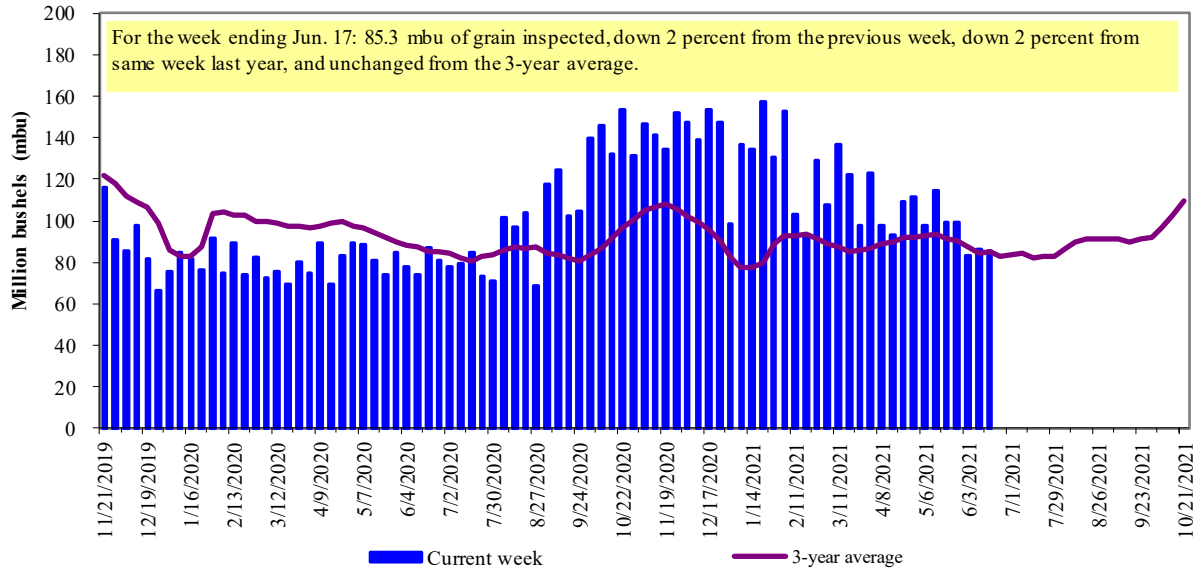
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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 14

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

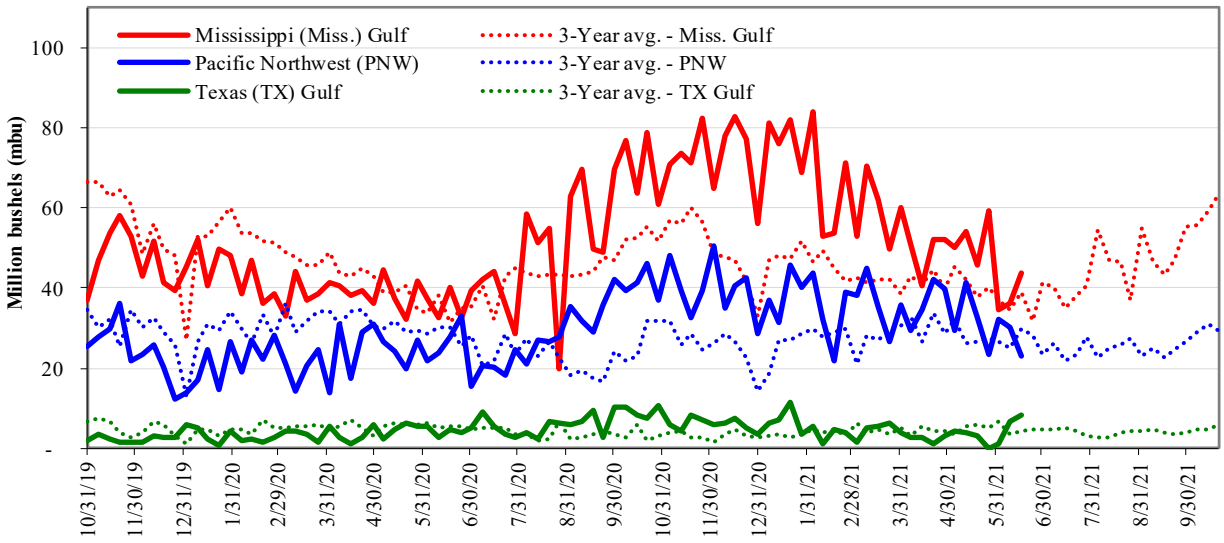


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

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



Week ending 06/17/21 inspections (mbu):	
MS Gulf:	43.6
PNW:	22.9
TX Gulf:	8.4

Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last wk:	up 21	up 30	up 22	down 24
Last Year (same wk):	up 8	up 77	up 16	down 18
3-yr avg. (4-wk. mov. Avg):	up 16	up 71	up 22	down 16

Source: USDA, Federal Grain Inspection Service.

Ocean Transportation

Table 17

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

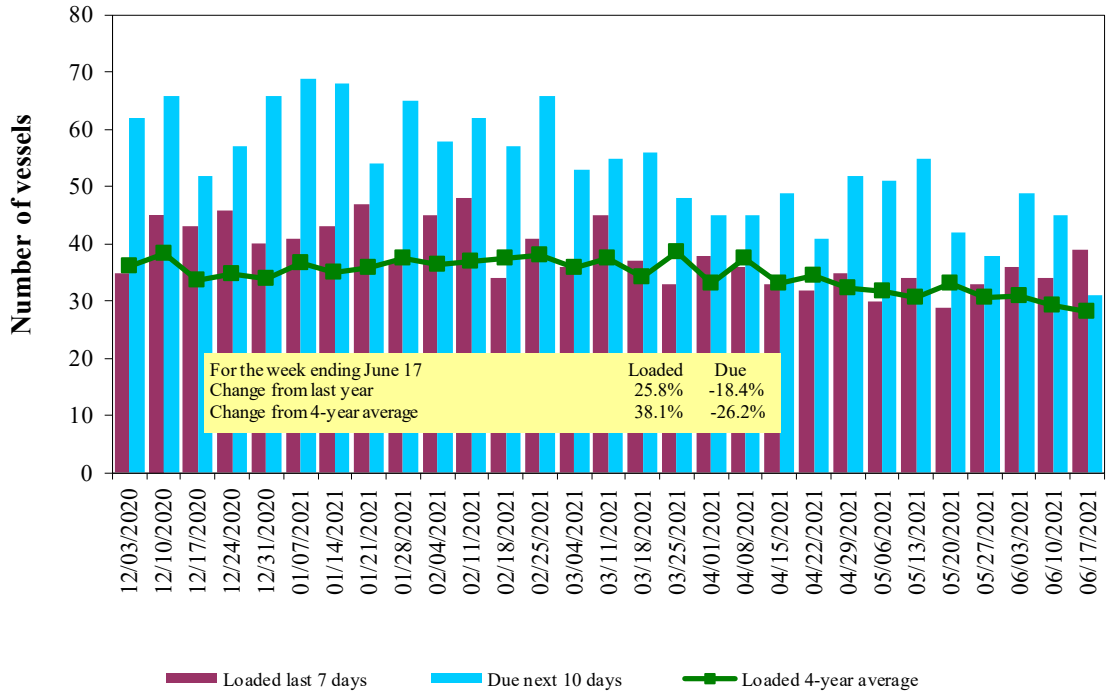
	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
6/17/2021	15	39	31	10
6/10/2021	28	34	45	12
2020 range	(22…60)	(23...46)	(34...68)	(7…24)
2020 average	37	33	49	15

Note: n/a = not available due to holiday.

Source: USDA, Agricultural Marketing Service.

Figure 16

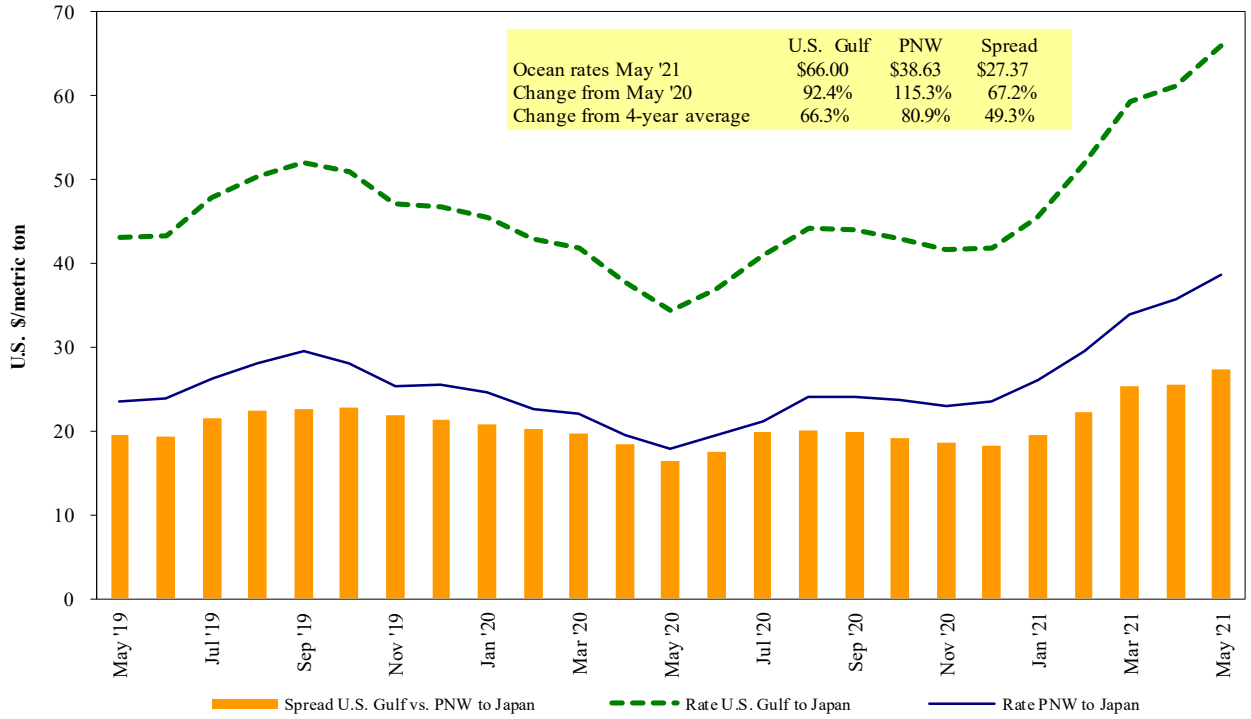
U.S. Gulf[1] vessel loading activity



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

Figure 17

Grain vessel rates, U.S. to Japan



Note: PNW = Pacific Northwest

Source: O'Neil Commodity Consulting

Table 18

Ocean freight rates for selected shipments, week ending 06/19/2021

Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US$/metric ton)
U.S. Gulf	Japan	Heavy grain	Aug 21/Sep 9	50,000	60.90
U.S. Gulf	Japan	Heavy grain	Aug 1/10	50,000	69.75
U.S. Gulf	Japan	Heavy grain	Jul 1/15	50,000	64.10
U.S. Gulf	Japan	Grain	May 25/Jun 25	50,000	46.85 op 47.85
U.S. Gulf	Japan	Heavy grain	Apr 15/May 15	50,000	47.00
U.S. Gulf	Sudan	Wheat	May 20/30	48,000	112.75*
U.S. Gulf	Djibouti	Wheat	Jul 6/16	5,880	85.70*
PNW	Japan	Wheat	Jul 25/ Aug 5	32,590	64.00
PNW	Japan	Wheat	Jul 16/31	30,250	64.35
PNW	Japan	Wheat	Jun 5/15	50,600	49.30
PNW	Yemen	Wheat	Jun 10/20	22,230	132.25*
PNW	Taiwan	Heavy grain	Aug 20/30	35,000	64.20*
PNW	Taiwan	Wheat	May 29/Jun 12	45,665	48.00

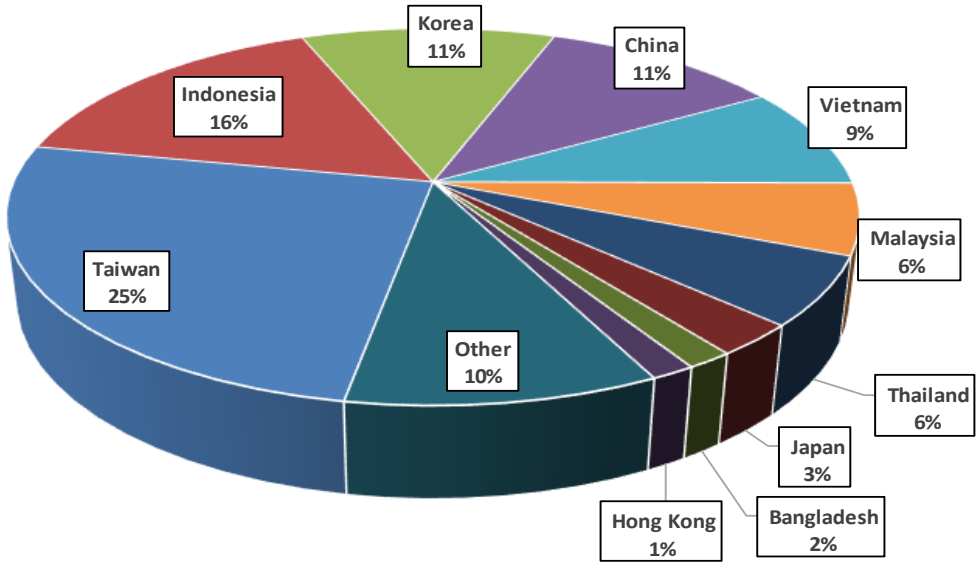
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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 2019, containers were used to transport 9 percent of total U.S. waterborne grain exports. Approximately 60 percent of U.S. waterborne grain exports in 2019 went to Asia, of which 14 percent were moved in containers. Approximately 94 percent of U.S. waterborne containerized grain exports were destined for Asia.

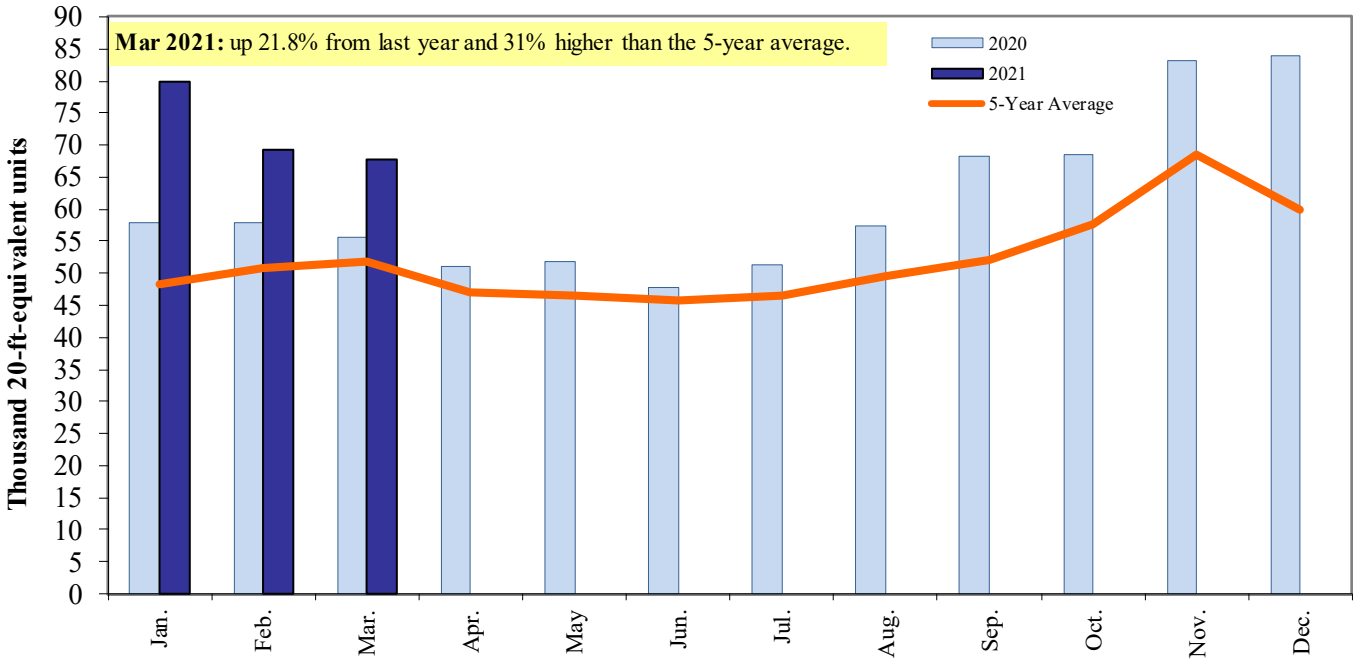
Figure 18
Top 10 destination markets for U.S. containerized grain exports, Jan-Mar 2021



Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 1001, 100190, 1002, 1003 100300, 1004, 100400, 1005, 100590, 1007, 100700, 1102, 110100, 230310, 110220, 110290, 1201, 120100, 230210, 230990, 230330, 120810, and 120190.

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

Figure 19
Monthly shipments of U.S. containerized grain exports



Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 100190, 100200, 100300, 100400, 100590, 100700, 110100, 110220, 110290, 1201, 120100, 120190, 120810, 230210, 230310, 230330, and 230990.

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

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