USDA Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE

Grain Transportation Report

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

Contact Us

December 23, 2021

Contents

The next release is December 30, 2021

WEEKLY HIGHLIGHTS

U.S. Maritime Administration Awards Nine Marine Highway Grants

The U.S. Maritime Administration (MARAD) recently announced the award of nine grants, worth $12.6 million. Funded by MARAD's America's Marine Highway program (AMHP), these grants will address supply chain disruptions and enhance the movement of goods along the Nation's navigable waterways. The grants will also expand existing waterborne freight services in Delaware, Hawaii, Indiana, Kentucky, Louisiana, North Carolina, New York, New Jersey, Tennessee, Texas, and Virginia. Of the nine new grant recipients, three projects will directly enhance vessel traffic and container movements: First, in Indiana and Kentucky, a $1,408,000 project at Nucor Steel Gallatin will support the purchase of a Buy American-compliant bridge crane at the new marine terminal in Ghent, KY. Second, in Louisiana and Tennessee, a $847,500 project will support the continued growth of a container shuttle service from Memphis, TN, to Port Allen, LA. Third, in Texas, a $3 million project will support the purchase of two purpose-built barges. Since 2016, MARAD has received $44.6 million in funding under AMHP, given to a total 24 eligible marine highway projects.

White House Outlines Plan To Recruit Truck Drivers

On December 16, the White House unveiled its Trucking Action Plan. The plan aims to reverse the decline of the trucking workforce with coordinated efforts among the Departments of Labor and Transportation (DOT), including DOT's Federal Motor Carrier Safety Administration. Several initiatives aim to foster more registered apprenticeship programs, ensuring the industry has a "steady pipeline of skilled, safe, and experienced drivers." Other efforts focus on helping U.S. military veterans (especially those with previous truck driving experience) transition into commercial driver positions. Yet more actions focus on training commercial drivers aged 18-21; recruiting and advancing women in trucking; investigating predatory truck-leasing agreements; conducting a study on driver compensation and time; and streamlining commercial driver's license processing and testing. At the end of 90 days (March 16), all coordinating Federal agencies intend to deliver a more comprehensive, long-term action plan, informed by listening sessions.

STB Publishes Updated Rail Rate Study

On December 17, the Surface Transportation Board (STB) released an updated *Rail Rate Index Study*, showing real (adjusted for inflation) and nominal rail rates (measured as revenue per ton-mile) from 1985 to 2019. The study uses STB's confidential Carload Waybill Sample data to show how rates have changed over time, across the entire rail industry, and within specific commodity groups. From 1985 through the mid-2000s, for most commodities, real rail rates fell, then increased through the early 2010s, and since then, have remained relatively flat. Notably, from 2004 to 2019, STB's intermodal and commodity-level rail rate indices show rates for shipping grain increased 35 percentage points (pp)—as compared to increases of 9 pp for chemicals, 14 pp for coal, and 20 pp for intermodal traffic (containers and trailers of any commodity). In 2019, rail rates for shipping grain were 6 pp above their 1985 levels—in stark contrast with rates for all other commodities, which were down.

Snapshots by Sector

Export Sales

For the week ending December 9, **unshipped balances** of wheat, corn, and soybeans for marketing year 2021/22 totaled 46.5 million metric tons (mmt), down 19 percent from same time last year, and up 1 percent from the previous week. Net **corn export sales** were 1.949 mmt, up 72 percent from the previous week. Net **soybean export sales** were 1.309 mmt, down 20 percent from the previous week. Net weekly **wheat export sales** were 0.651 mmt, up significantly from the previous week.

Rail

U.S. Class I railroads originated 24,876 **grain carloads** during the week ending December 11. This was a 12-percent decrease from the previous week, 12 percent fewer than last year, and 3 percent more than the 3-year average.

Average January shuttle **secondary railcar** bids/offers (per car) were $1,003 above tariff for the week ending December 16. This was $124 more than last week and $563 more than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending December 18, **barged grain movements** totaled 822,326 tons. This was 2 percent fewer than the previous week and 27 percent fewer than the same period last year.

For the week ending December 18, 524 grain barges **moved down river**—31 more barges than the previous week. There were 788 grain barges unloaded in the New Orleans region, 6 percent more than last week.

Ocean

For the week ending December 16, 33 **oceangoing grain vessels** were loaded in the Gulf—down 23 percent from the same period last year. Within the next 10 days (starting December 17), 60 vessels were expected to be loaded—15 percent higher than the same period last year.

As of December 16, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $70.00. This was 3 percent lower than last week. The rate from the Pacific Northwest to Japan was $37.25 per mt, 4 percent lower than last week.

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Web: **http://dx.doi.org/10.9752/TS056.12-23-2021**

Feature Article/Calendar

Date	Event	Location	Website for More Information
	The following list contains information and links to upcoming events in 2022.		
Jan. TBD	**AgTC/USDA Ag Shipper Workshops** Each year, the Agriculture Transportation Coalition (AgTC) and USDA offer a series of Ag Shipper Workshops, convening exporters to discuss the state of agricultural transportation. In January, AgTC and USDA plan to conduct two workshops, one with the Northwest Seaport Alliance and the other with South Carolina Ports Authority.	Virtual	https://agtrans.org/events/
Jan. 12-13	**Midwest Association of Rail Shippers Winter Meeting** The association's 257th meeting includes such presentations as "navigating the current supply chain as a shipper," "opportunities for shippers and short lines," and "railroading in today's supply chain."	Lombard, IL	https://www.mwrailshippers.com/event/2022-winter-meeting/
Jan. 9-13	**2022 Transportation Research Board (TRB) Annual Meeting** The 101st annual TRB meeting invokes the theme "Innovating an Equitable, Resilient, Sustainable, and Safe Transportation System" as the focus of its sessions and workshops. In one session, a panel of industry and government speakers will discuss challenges of agriculture and the food supply chain.	Washington, DC	http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx
Jan. 11-14	**National Association of Wheat Growers 2022 Wheat Industry Meeting** The meeting's agenda devotes time to domestic and international trade policy, as well as issues of the environment, wheat breeding, and other research concerns.	Washington, DC	https://wheatworld.org/newsroom/meetings-events/wheat-industry-winter-conference/
Jan. 26-28	**TEGMA 2022 Annual Meeting** The Transportation, Elevator and Grain Merchants Association (TEGMA) intends its meeting to bring new insights to its membership and stakeholders. The meeting invites the grain-based agribusiness industry to debate, discuss, and facilitate resolution of operational and business issues. Presentations from Canadian Pacific Railway and the Surface Transportation Board are featured.	Scottsdale, AZ	https://www.tegma.org/2022-annual-meeting
Feb. 23-24	**40th Annual Mississippi Valley Trade and Transport Conference** The conference provides participants with networking opportunities and timely information, including updates on river operations and infrastructure, the current economic outlook, and trade and transportation.	New Orleans, LA	http://mvttc.com/
Feb. 24-25	**USDA's Agricultural Outlook Forum** Next year (2022) marks USDA's 98th annual Agricultural Outlook Forum (AOF). With the theme "New Paths to Sustainability Growth," AOF aims to explore new ways to achieve environmental sustainability, while increasing agricultural productivity. Three sessions are devoted to supply chain resilence, including one on "the effects of shipping disruptions on U.S. agriculture."	Virtual	https://www.usda.gov/oce/ag-outlook-forum
Feb. 14-18	***Freight Waves* Global Supply Chain Week** *Freight Waves* publication will host a virtual global supply chain week, diving deep into the supply chains of various industries including retail, consumer packaged goods, automotive, and heavy industries	Virtual	https://live.freightwaves.com/global-supply-chain-week-2022
Feb. 24	**The American Waterways Operators Combined Regional Meeting** The annual meeting of the American Waterways Operators—which advocates nationally on behalf of the U.S. tugboat, towboat, and barge industry—will focus on current regional advocacy and regulatory efforts. The meeting includes some organizational governance. This event is open to members only.	Nashville, TN	https://www.americanwaterways.com/events/combined-annual-meeting-midwest-ohio-valley-and-southern-regions-0
Mar. 15-16	**STB Public Hearing on Reciprocal Switching** The Surface Transportation Board (STB) will hold a public hearing on the reciprocal switching regulations it first proposed in 2016. Reciprocal (or competitive) switching refers to a shipper's ability to access an alternate railroad through its incumbent railroad.	Washington, DC	https://www.stb.gov/news-communications/latest-news/pr-21-46/
Apr. 7-9	**Transportation Research Forum 63rd Annual Meeting** The Transportation Research Forum (TRF) convenes transportation practitioners, regulators, and academics from multiple modes and sectors to share ideas, explore current research and policy issues, and build networks. TRF offers an abundance of notable speakers, research presentations, and policy discussions. Sessions will cover topics in transportation, logistics, and economics.	St. Louis, MO	https://annualforum.trforum.org/

Grain Transportation Indicators

Table 1
Grain transport cost indicators[1]

For the week ending	Truck	Rail		Barge	Ocean	
		Non-Shuttle	Shuttle		Gulf	Pacific
12/22/21	243	299	273	410	313	264
12/15/21	245	299	279	364	324	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.

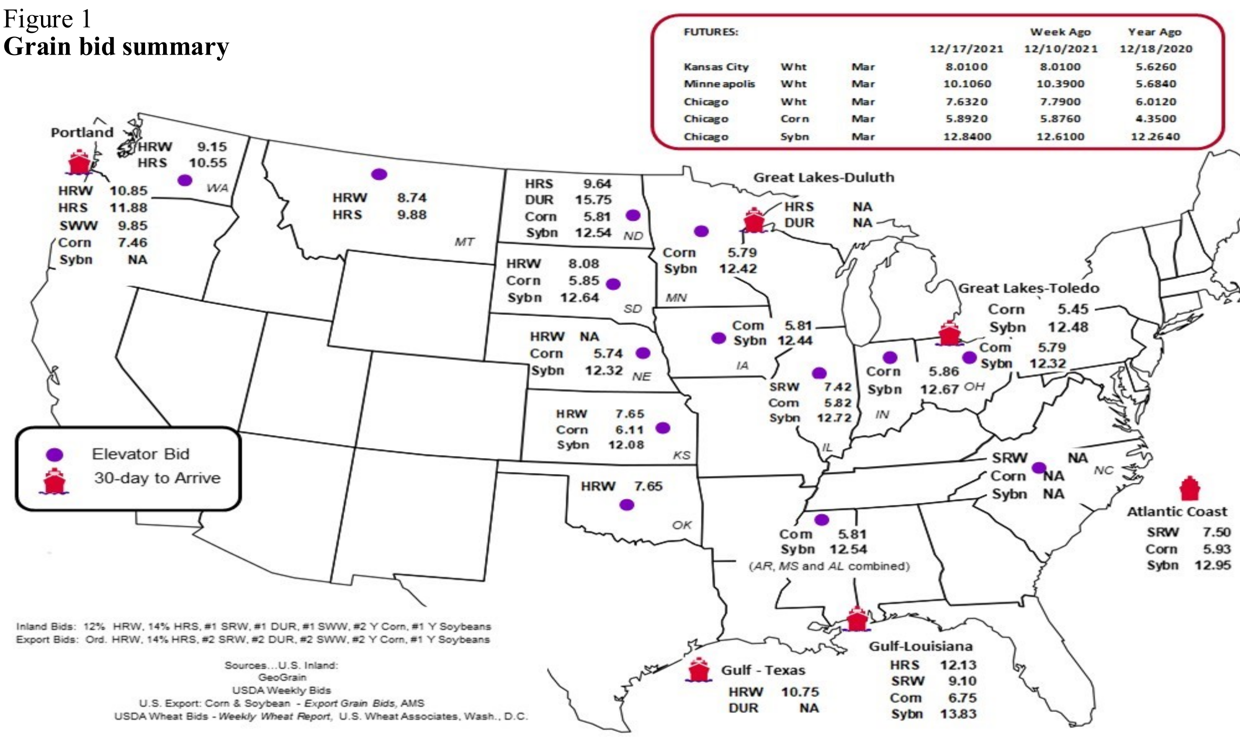
Table 2
Market Update: U.S. origins to export position price spreads ($/bushel)

Commodity	Origin–destination	12/17/2021	12/10/2021
Corn	IL–Gulf	-0.93	-0.92
Corn	NE–Gulf	-1.01	-0.99
Soybean	IA–Gulf	-1.39	-1.34
HRW	KS–Gulf	-3.10	-2.69
HRS	ND–Portland	-2.24	-2.25

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]
12/15/2021[p]	1,276	572	6,739	814	9,401	12/11/2021	3,248
12/08/2021[r]	1,584	1,726	8,176	1,085	12,571	12/4/2021	2,797
2021 YTD[r]	50,695	65,259	294,386	20,638	430,978	2021 YTD	140,324
2020 YTD[r]	40,587	58,986	276,353	21,582	397,508	2020 YTD	121,968
2021 YTD as % of 2020 YTD	125	111	107	96	108	% change YTD	115
Last 4 weeks as % of 2020[2]	71	60	96	78	85	Last 4wks. % 2020	117
Last 4 weeks as % of 4-year avg.[2]	190	122	128	179	136	Last 4wks. % 4 yr.	116
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.

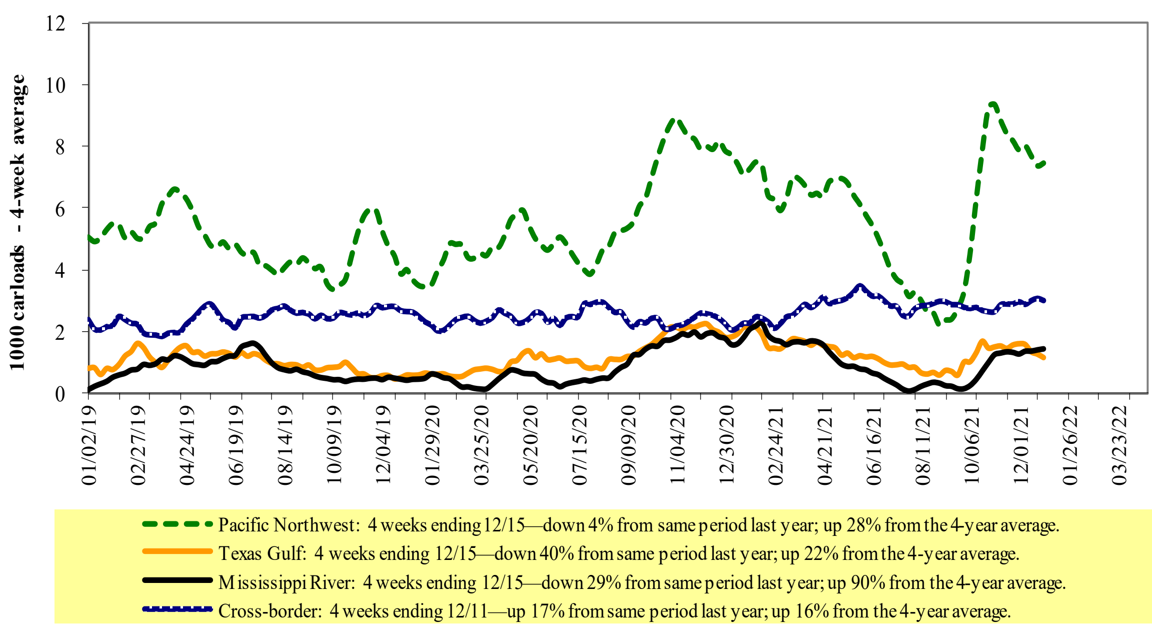
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available; wks. = weeks; avg. = average.

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	
12/11/2021	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	2,240	2,661	12,599	1,481	5,895	24,876	4,300	4,118
This week last year	1,933	2,730	15,795	974	6,952	28,384	5,482	5,967
2021 YTD	88,527	114,794	577,828	60,723	302,663	1,144,535	200,107	231,154
2020 YTD	86,065	122,937	576,138	54,787	277,228	1,117,155	223,815	245,101
2021 YTD as % of 2020 YTD	103	93	100	111	109	102	89	94
Last 4 weeks as % of 2020*	96	74	97	128	95	95	64	68
Last 4 weeks as % of 3-yr. avg.**	112	82	105	139	118	108	75	78
Total 2020	91,659	129,802	613,630	57,782	296,701	1,189,574	238,037	261,778

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

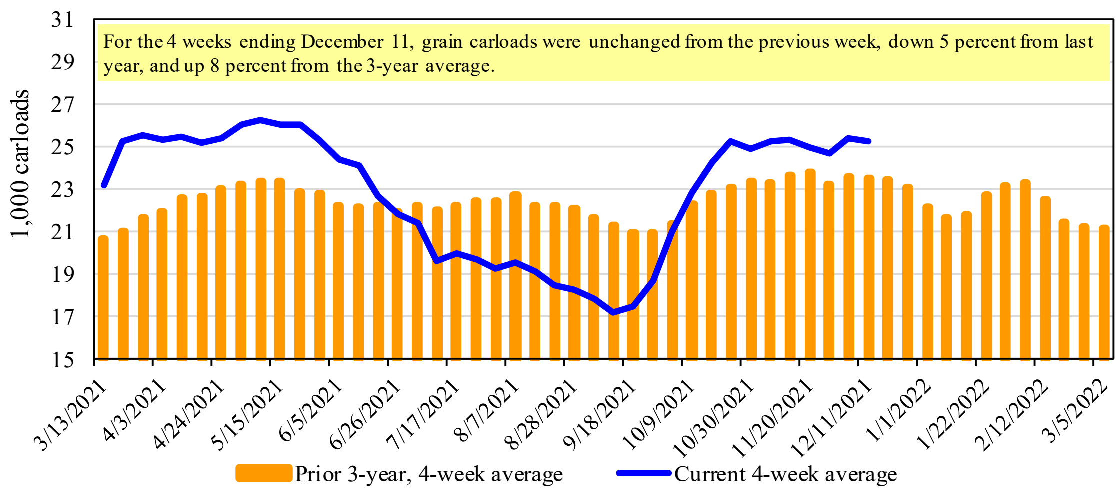
**The past 4 weeks as a percent of the same period from the prior 3-year average. YTD = year-to-date; avg. = average; yr. = year.

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: 12/16/2021		Jan-22	Jan-21	Feb-22	Feb-21	Mar-22	Mar-21	Apr-22	Apr-21
		Delivery period							
BNSF[3]	COT grain units	68	1	0	0	0	0	no bids	0
	COT grain single-car	219	401	37	236	0	128	0	0
UP[4]	GCAS/Region 1	no offer	no offer	no offer	no offer	no offer	no offer	n/a	n/a
	GCAS/Region 2	no offer	no offer	no offer	no offer	no offer	no offer	n/a	n/a

[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.

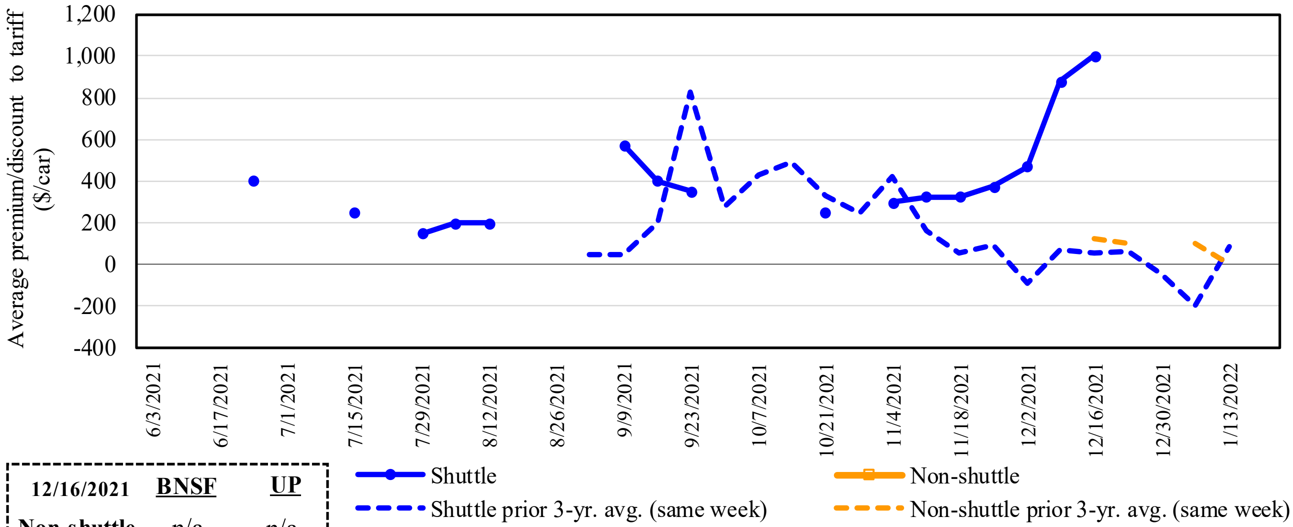
Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

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 January 2022, secondary market



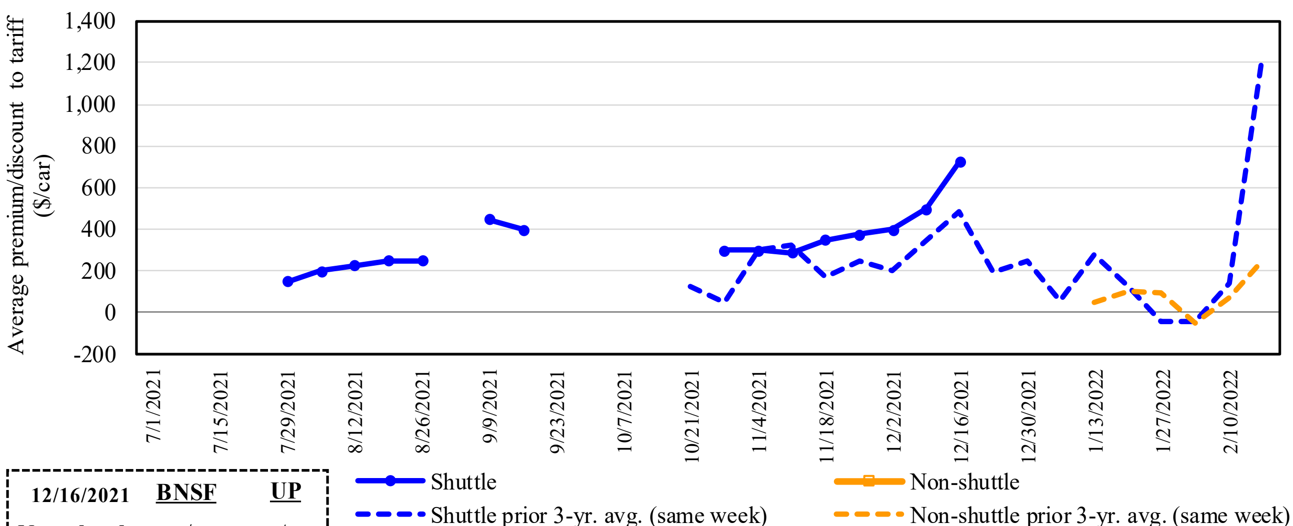
12/16/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$1,156	$850

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers rose $124 this week and are at 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 February 2022, secondary market



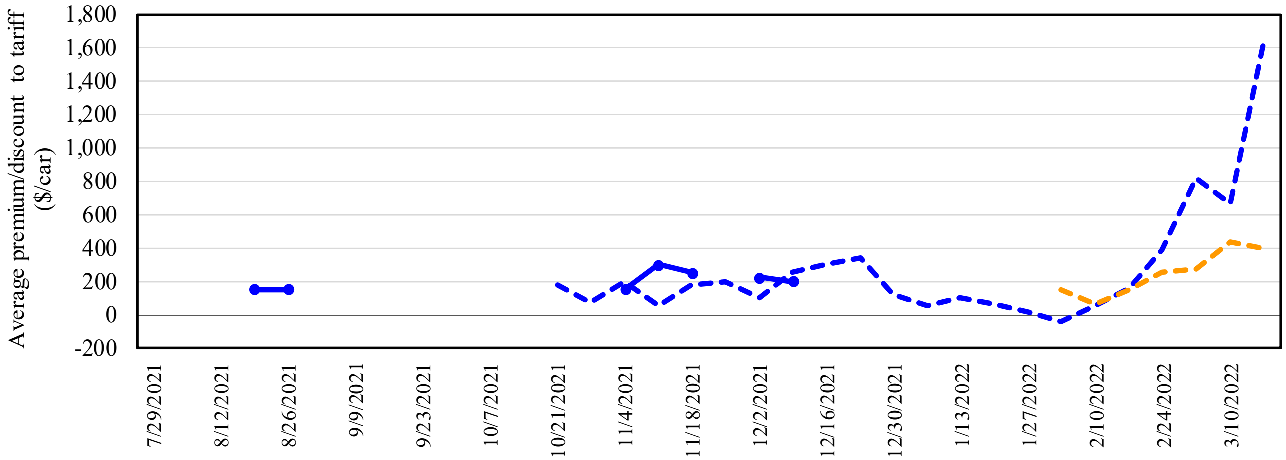
12/16/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$750	$700

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers rose $225 this week and are at 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 March 2022, secondary market



12/16/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	n/a	n/a

There were no non-shuttle bids/offers this week.
There were no shuttle bids/offers this week.

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: 12/16/2021	Delivery period					
		Jan-22	**Feb-22**	**Mar-22**	**Apr-22**	**May-22**	**Jun-22**
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**	**1,156**	**750**	**n/a**	**25**	**n/a**	**n/a**
	Change from last week	339	250	n/a	75	n/a	n/a
	Change from same week 2020	606	150	n/a	(113)	n/a	n/a
	UP-Pool	**850**	**700**	**n/a**	**(150)**	**n/a**	**n/a**
	Change from last week	(92)	200	n/a	(50)	n/a	n/a
	Change from same week 2020	521	325	n/a	(142)	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.

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]

December 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	$167	$38.35	$1.04	4
	Grand Forks, ND	Duluth-Superior, MN	$3,658	$0	$36.33	$0.99	-13
	Wichita, KS	Los Angeles, CA	$7,290	$0	$72.39	$1.97	2
	Wichita, KS	New Orleans, LA	$4,525	$294	$47.85	$1.30	5
	Sioux Falls, SD	Galveston-Houston, TX	$7,026	$0	$69.77	$1.90	3
	Colby, KS	Galveston-Houston, TX	$4,801	$322	$50.87	$1.38	5
	Amarillo, TX	Los Angeles, CA	$5,121	$448	$55.30	$1.51	7
Corn	Champaign-Urbana, IL	New Orleans, LA	$4,000	$332	$43.02	$1.09	9
	Toledo, OH	Raleigh, NC	$8,130	$0	$80.73	$2.05	4
	Des Moines, IA	Davenport, IA	$2,505	$70	$25.57	$0.65	4
	Indianapolis, IN	Atlanta, GA	$6,227	$0	$61.84	$1.57	4
	Indianapolis, IN	Knoxville, TN	$5,247	$0	$52.11	$1.32	4
	Des Moines, IA	Little Rock, AR	$4,000	$207	$41.77	$1.06	7
	Des Moines, IA	Los Angeles, CA	$5,880	$602	$64.37	$1.63	10
Soybeans	Minneapolis, MN	New Orleans, LA	$3,631	$412	$40.15	$1.09	11
	Toledo, OH	Huntsville, AL	$6,714	$0	$66.67	$1.81	2
	Indianapolis, IN	Raleigh, NC	$7,422	$0	$73.70	$2.01	4
	Indianapolis, IN	Huntsville, AL	$5,367	$0	$53.30	$1.45	2
	Champaign-Urbana, IL	New Orleans, LA	$4,745	$332	$50.42	$1.37	8
Shuttle train							
Wheat	Great Falls, MT	Portland, OR	$4,193	$0	$41.64	$1.13	4
	Wichita, KS	Galveston-Houston, TX	$4,411	$0	$43.80	$1.19	4
	Chicago, IL	Albany, NY	$6,670	$0	$66.24	$1.80	5
	Grand Forks, ND	Portland, OR	$5,851	$0	$58.10	$1.58	3
	Grand Forks, ND	Galveston-Houston, TX	$5,721	$0	$56.81	$1.55	-5
	Colby, KS	Portland, OR	$6,012	$528	$64.94	$1.77	7
Corn	Minneapolis, MN	Portland, OR	$5,380	$0	$53.43	$1.36	4
	Sioux Falls, SD	Tacoma, WA	$5,340	$0	$53.03	$1.35	4
	Champaign-Urbana, IL	New Orleans, LA	$3,920	$332	$42.22	$1.07	10
	Lincoln, NE	Galveston-Houston, TX	$4,080	$0	$40.52	$1.03	5
	Des Moines, IA	Amarillo, TX	$4,420	$260	$46.47	$1.18	7
	Minneapolis, MN	Tacoma, WA	$5,380	$0	$53.43	$1.36	4
	Council Bluffs, IA	Stockton, CA	$5,300	$0	$52.63	$1.34	4
Soybeans	Sioux Falls, SD	Tacoma, WA	$6,050	$0	$60.08	$1.64	3
	Minneapolis, MN	Portland, OR	$6,100	$0	$60.58	$1.65	3
	Fargo, ND	Tacoma, WA	$5,950	$0	$59.09	$1.61	3
	Council Bluffs, IA	New Orleans, LA	$4,975	$383	$53.21	$1.45	8
	Toledo, OH	Huntsville, AL	$4,954	$0	$49.20	$1.34	0
	Grand Island, NE	Portland, OR	$5,360	$540	$58.59	$1.59	10

[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

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
Date: December 2021							
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.

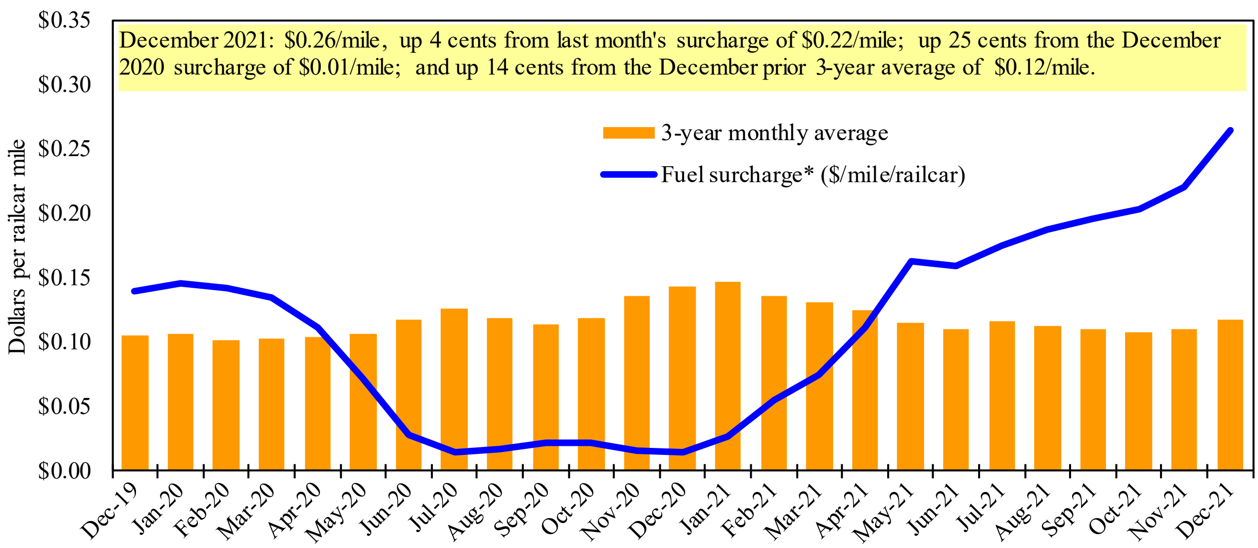
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

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

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

Figure 7

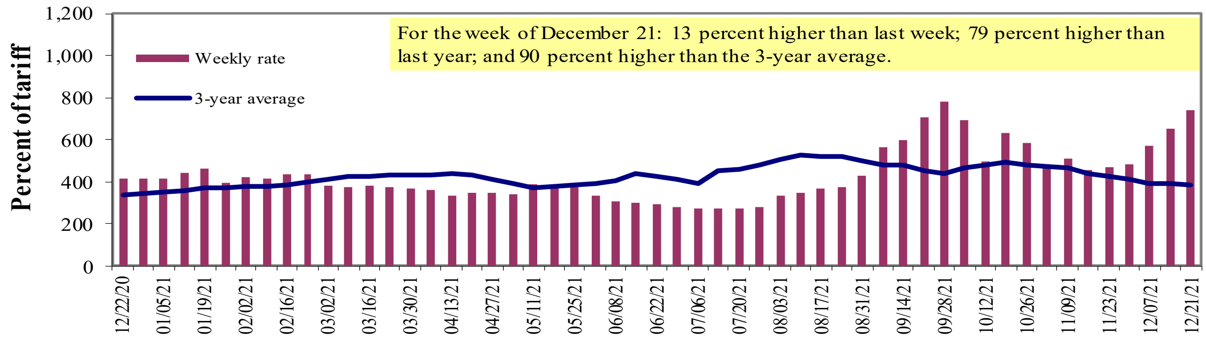
Railroad fuel surcharges, North American weighted average[1]



[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]



[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 9
Weekly barge freight rates: Southbound only

		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate[1]	12/21/2021	-	675	738	725	663	663	550
	12/14/2021	-	673	655	635	645	645	545
$/ton	12/21/2021	-	35.91	34.24	28.93	31.09	26.79	17.27
	12/14/2021	-	35.80	30.39	25.34	30.25	26.06	17.11
Current week % change from the same week:								
	Last year	-	-	79	136	88	88	101
	3-year avg. [2]	-	-	90	154	100	100	112
Rate[1]	January	-	-	557	488	507	507	377
	March	-	438	420	333	377	377	300

[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

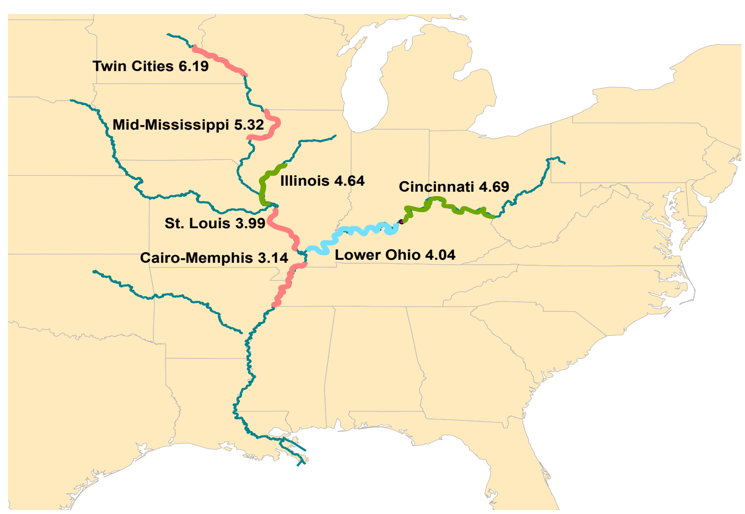
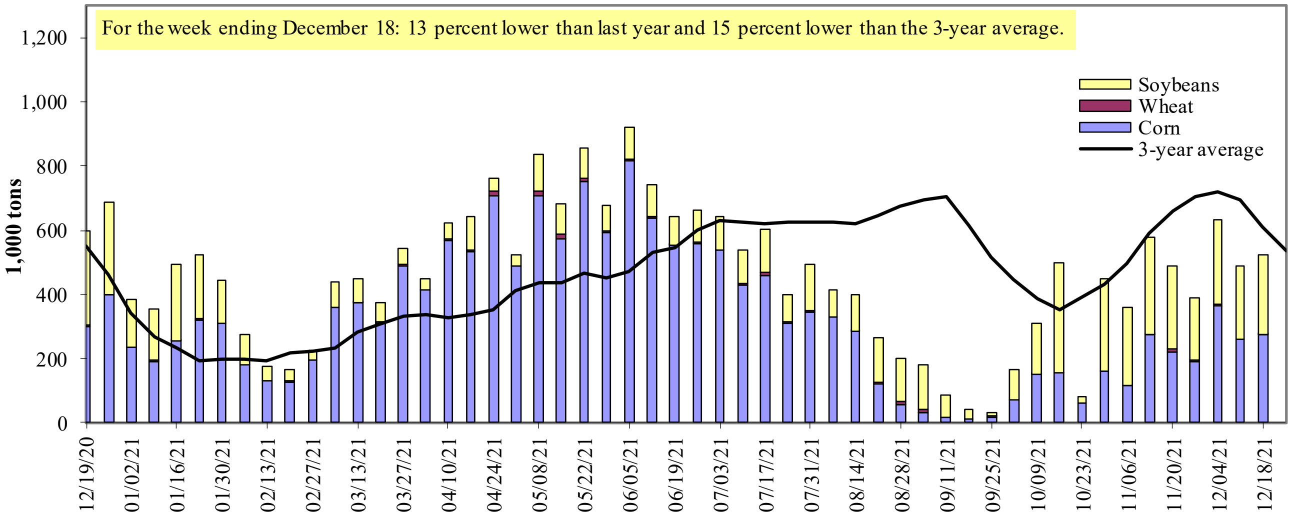


Figure 10

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 12/18/2021	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	0	0	24	0	24
Winfield, MO (L25)	93	3	104	0	200
Alton, IL (L26)	245	3	257	0	505
Granite City, IL (L27)	273	3	245	0	522
Illinois River (La Grange)	163	0	134	0	298
Ohio River (Olmsted)	117	18	100	0	236
Arkansas River (L1)	0	20	45	0	64
Weekly total - 2021	391	41	391	0	822
Weekly total - 2020	376	21	722	2	1,120
2021 YTD[1]	22,951	1,610	10,683	278	35,521
2020 YTD[1]	17,602	1,729	17,758	223	37,311
2021 as % of 2020 YTD	130	93	60	125	95
Last 4 weeks as % of 2020[2]	109	109	61	213	79
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.

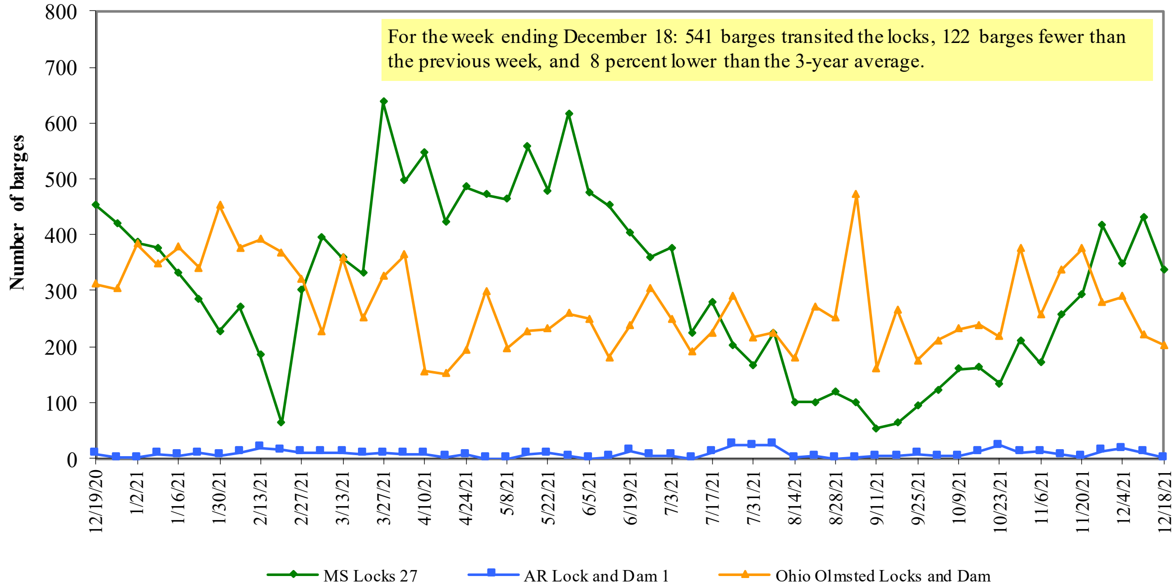
[2] As a percent of same period in 2020.

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

Source: U.S. Army Corps of Engineers.

Figure 11

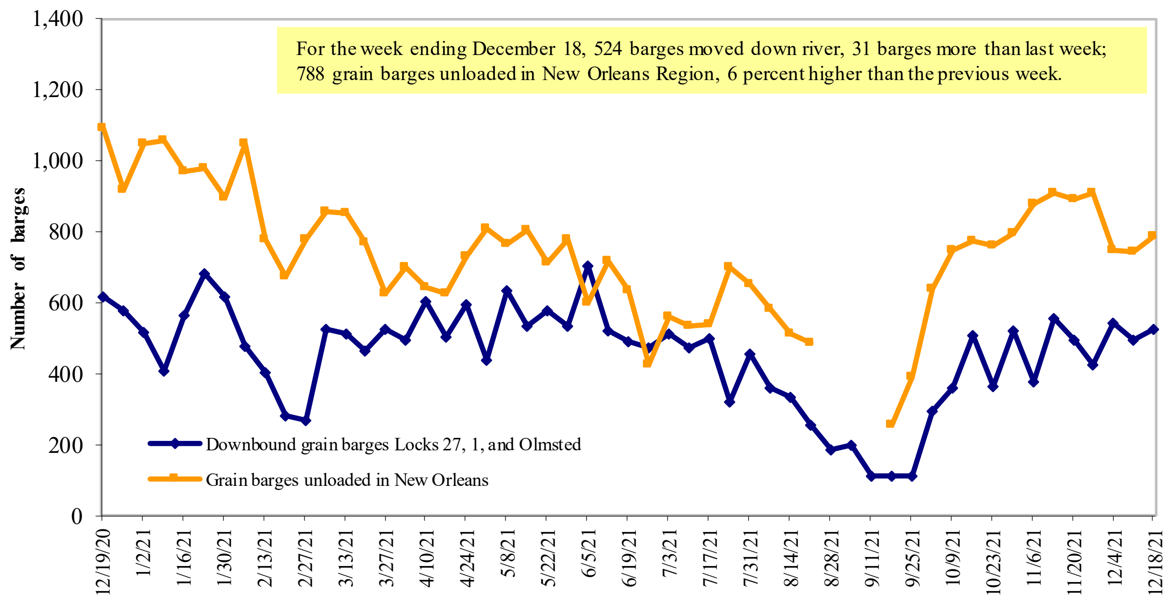
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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 12/20/2021 (U.S. $/gallon)

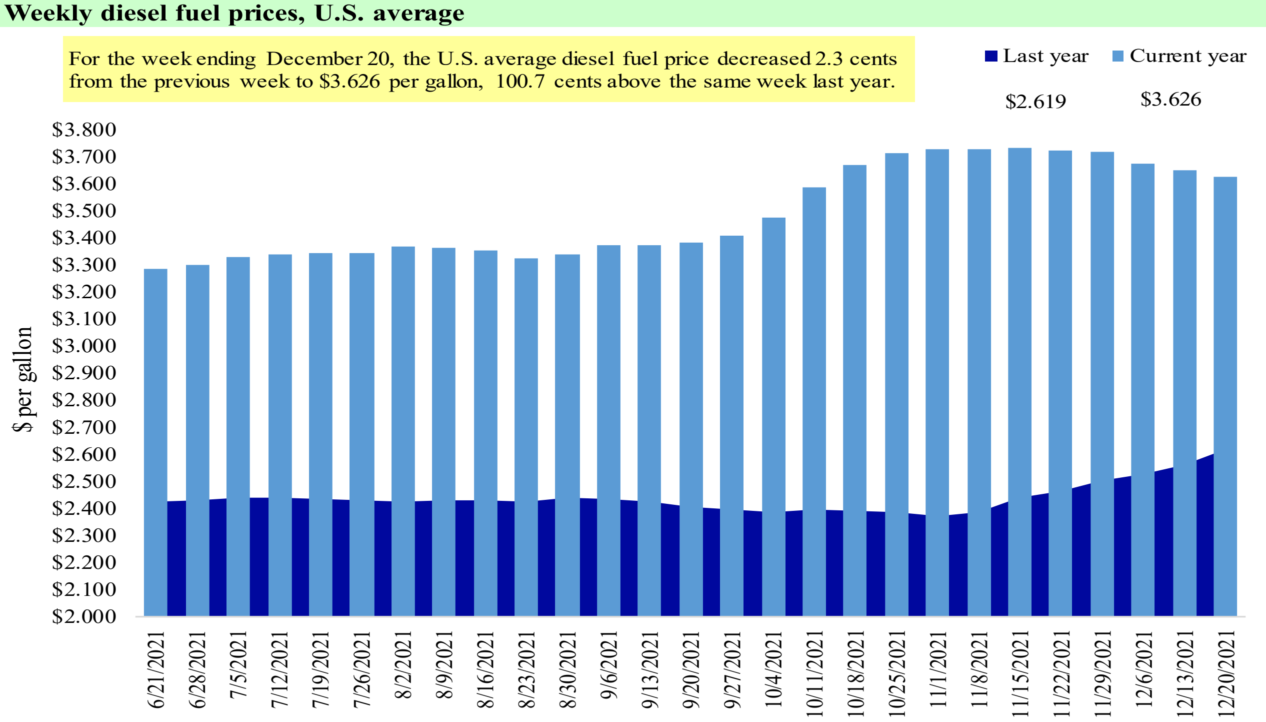
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.611	-0.022	0.959
	New England	3.633	-0.010	0.999
	Central Atlantic	3.792	-0.019	0.957
	Lower Atlantic	3.496	-0.025	0.963
II	Midwest	3.492	-0.020	0.933
III	Gulf Coast	3.339	-0.033	0.960
IV	Rocky Mountain	3.731	-0.027	1.149
V	West Coast	4.381	-0.017	1.284
	West Coast less California	3.941	-0.029	1.173
	California	4.768	-0.007	1.398
Total	United States	3.626	-0.023	1.007

[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]									
12/9/2021	2,195	686	1,184	797	36	4,897	26,867	14,691	46,455
This week year ago	1,645	438	1,595	2,649	159	6,486	29,527	21,422	57,435
Cumulative exports-marketing year[2]									
2021/22 YTD	3,901	1,537	2,850	1,929	97	10,314	11,645	25,423	47,381
2020/21 YTD	5,251	1,028	3,846	2,604	433	13,163	12,053	32,248	57,464
YTD 2021/22 as % of 2020/21	74	149	74	74	22	78	97	79	82
Last 4 wks. as % of same period 2020/21*	124	144	74	30	28	72	88	74	81
Total 2020/21	8,331	1,744	7,337	6,281	654	24,347	66,702	60,287	151,336
Total 2019/20	9,526	2,318	6,960	4,751	922	24,477	42,622	43,994	111,094

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

[2] Shipped export sales to date; 2021/22 marketing year now in effect for wheat, corn and soybeans.

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 12/9/2021	**Total commitments**[2]		**% change**	**Exports**[3]
	2021/22	**2020/21**	**current MY**	**3-yr. avg.**
	current MY	**last MY**	**from last MY**	**2019-21**
	1,000 mt -			
Mexico	11,503	9,657	19	14,817
Japan	3,148	5,146	(39)	11,082
China	12,210	11,552	6	7,920
Columbia	2,187	1,909	15	4,491
Korea	72	1,060	(93)	3,302
Top 5 importers	**29,120**	**29,324**	**(1)**	**41,613**
Total U.S. corn export sales	**38,512**	**41,580**	**(7)**	**53,145**
% of projected exports	61%	59%		
Change from prior week[2]	**1,949**	**1,925**		
Top 5 importers' share of U.S. corn export sales	76%	71%		78%
USDA forecast December 2021	**63,613**	**70,051**	**(9)**	
Corn use for ethanol USDA forecast, December 2021	**133,350**	**127,711**	**4**	

[1]Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2020/21; 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 12/9/2021	Total commitments[2] 2021/22 current MY	2020/21 last MY	% change current MY from last MY	Exports[3] 3-yr. avg. 2018-20
				- 1,000 mt -
China	22,268	31,274	(29)	21,666
Mexico	2,677	3,384	(21)	4,754
Egypt	1,751	1,660	5	3,093
Indonesia	618	1,029	(40)	2,325
Japan	1,112	1,059	5	2,275
Top 5 importers	**28,425**	**38,404**	**(26)**	**34,113**
Total U.S. soybean export sales	**40,114**	**53,670**	**(25)**	**50,758**
% of projected exports	72%	87%		
change from prior week[2]	**1,309**	**853**		
Top 5 importers' share of U.S. soybean export sales	71%	72%		**67%**
USDA forecast, December 2021	**55,858**	**61,717**	**(9)**	

[1]Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2020/21; 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 12/9/2021	Total Commitments[2] 2021/22 current MY	2020/21 last MY	% change current MY from last MY	Exports[3] 3-yr. avg. 2018-20
		1,000 mt -		- 1,000 mt -
Mexico	2,752	2,590	6	3,388
Philippines	2,278	2,501	(9)	3,121
Japan	1,740	1,880	(7)	2,567
Korea	940	1,353	(31)	1,501
Nigeria	1,573	907	73	1,490
China	848	2,195	(61)	1,268
Taiwan	602	856	(30)	1,187
Indonesia	67	707	(91)	1,131
Thailand	436	693	(37)	768
Italy	174	534	(67)	681
Top 10 importers	**11,411**	**14,215**	(20)	**17,102**
Total U.S. wheat export sales	**15,211**	**19,649**	(23)	**24,617**
% of projected exports	66%	73%		
change from prior week[2]	**651**	**540**		
Top 10 importers' share of U.S. wheat export sales	75%	72%		69%
USDA forecast, December 2021	**22,888**	**27,030**	(15)	

[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 12/16/21	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	68	121	56	13,070	15,383	85	51	55	15,966
Corn	234	250	94	13,049	9,437	138	86	96	9,969
Soybeans	493	496	99	13,623	13,252	103	100	182	14,028
Total	**794**	**867**	**92**	**39,742**	**38,072**	**104**	**84**	**118**	**39,963**
Mississippi Gulf									
Wheat	17	13	135	3,113	3,375	92	92	43	3,422
Corn	497	460	108	37,751	27,459	137	96	104	28,781
Soybeans	960	954	101	25,163	35,848	70	73	104	38,013
Total	**1,475**	**1,427**	**103**	**66,027**	**66,682**	**99**	**78**	**102**	**70,215**
Texas Gulf									
Wheat	1	80	1	3,751	4,221	89	105	71	4,248
Corn	0	7	0	592	711	83	140	140	723
Soybeans	1	28	3	1,610	1,901	85	33	98	2,098
Total	**2**	**115**	**1**	**5,953**	**6,833**	**87**	**50**	**88**	**7,068**
Interior									
Wheat	94	36	259	2,919	2,148	136	121	127	2,263
Corn	226	183	124	9,754	8,427	116	125	137	8,683
Soybeans	150	171	88	6,270	6,967	90	98	117	7,274
Total	**471**	**390**	**121**	**18,944**	**17,542**	**108**	**114**	**128**	**18,220**
Great Lakes									
Wheat	43	33	130	510	891	57	66	48	891
Corn	23	0	n/a	145	105	138	70	210	111
Soybeans	0	0	n/a	552	1,087	51	7	14	1,111
Total	**66**	**33**	**200**	**1,206**	**2,082**	**58**	**29**	**40**	**2,113**
Atlantic									
Wheat	0	0	n/a	128	65	196	11	32	65
Corn	3	0	n/a	84	33	254	n/a	208	33
Soybeans	104	136	76	2,075	1,701	122	98	157	1,870
Total	**107**	**136**	**78**	**2,288**	**1,800**	**127**	**93**	**153**	**1,968**
U.S. total from ports*									
Wheat	223	283	79	23,490	26,083	90	65	62	26,854
Corn	984	901	109	61,375	46,171	133	100	110	48,301
Soybeans	1,708	1,785	96	49,295	60,757	81	78	121	64,394
Total	**2,915**	**2,969**	**98**	**134,160**	**133,011**	**101**	**81**	**109**	**139,548**

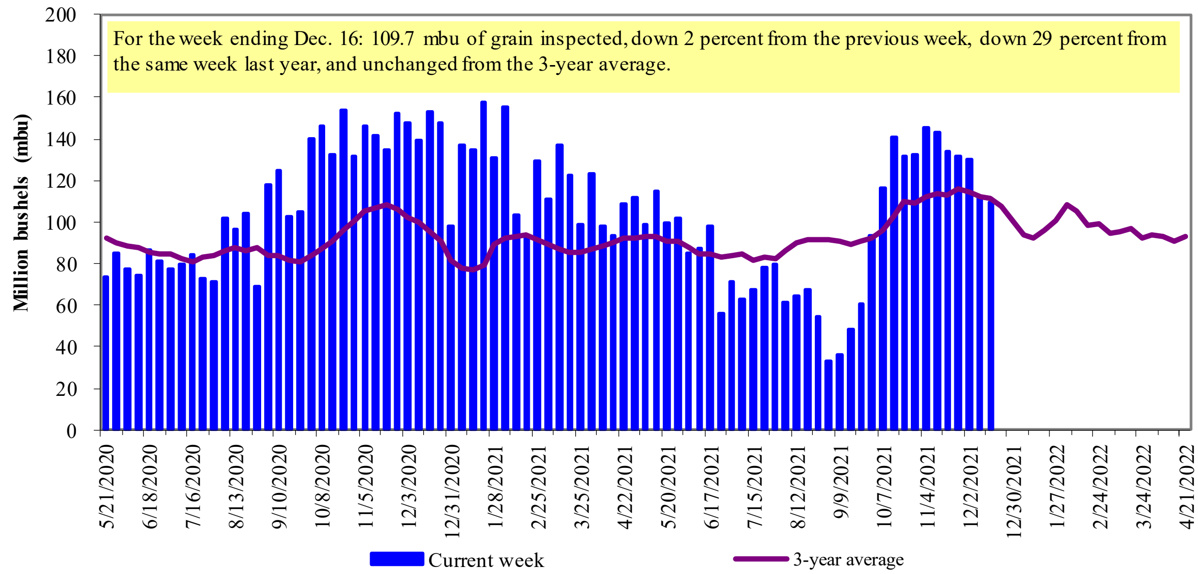
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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 2020.

Figure 14

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

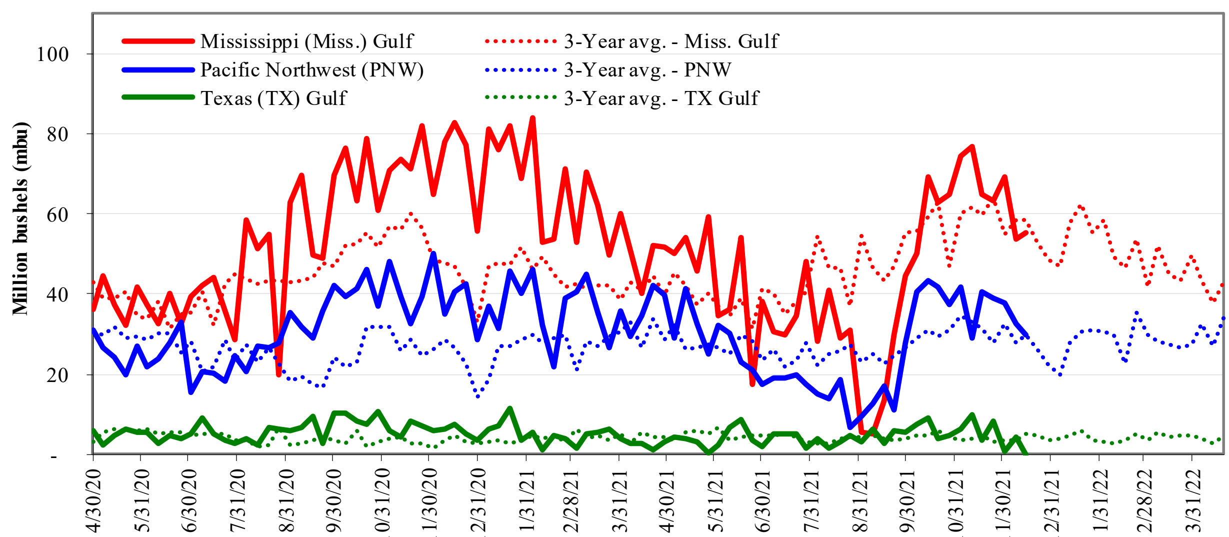


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

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



Week ending 12/16/21 inspections (mbu):		Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
MS Gulf:	55.5	Last wk:	up 3	down 99	down 4	down 8
PNW:	29.8	Last Year (same wk):	down 33	down 99	down 38	down 27
TX Gulf:	0.1	3-yr avg. (4-wk. mov. Avg):	down 6	down 98	down 12	up 1

Source: USDA, Federal Grain Inspection Service.

Ocean Transportation

Table 17

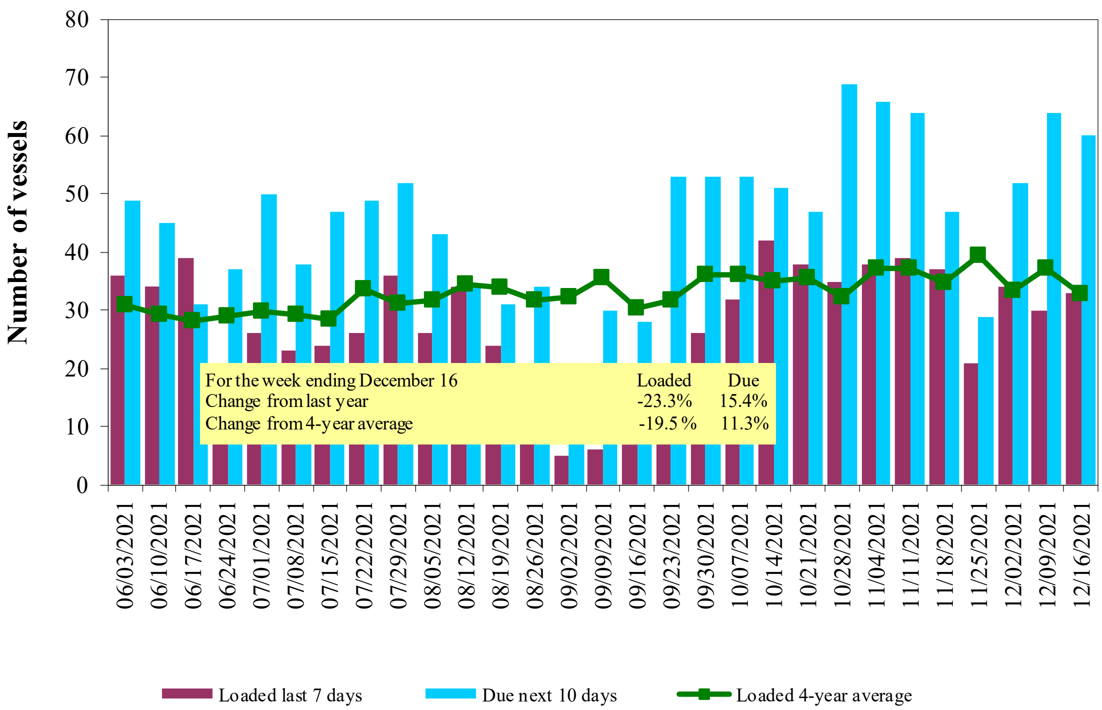
Weekly port region grain ocean vessel activity (number of vessels)

	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
12/16/2021	33	33	60	21
12/9/2021	40	30	64	20
2020 range	(22…60)	(23...46)	(34...68)	(7…24)
2020 average	37	33	49	15

Source: USDA, Agricultural Marketing Service.

Figure 16

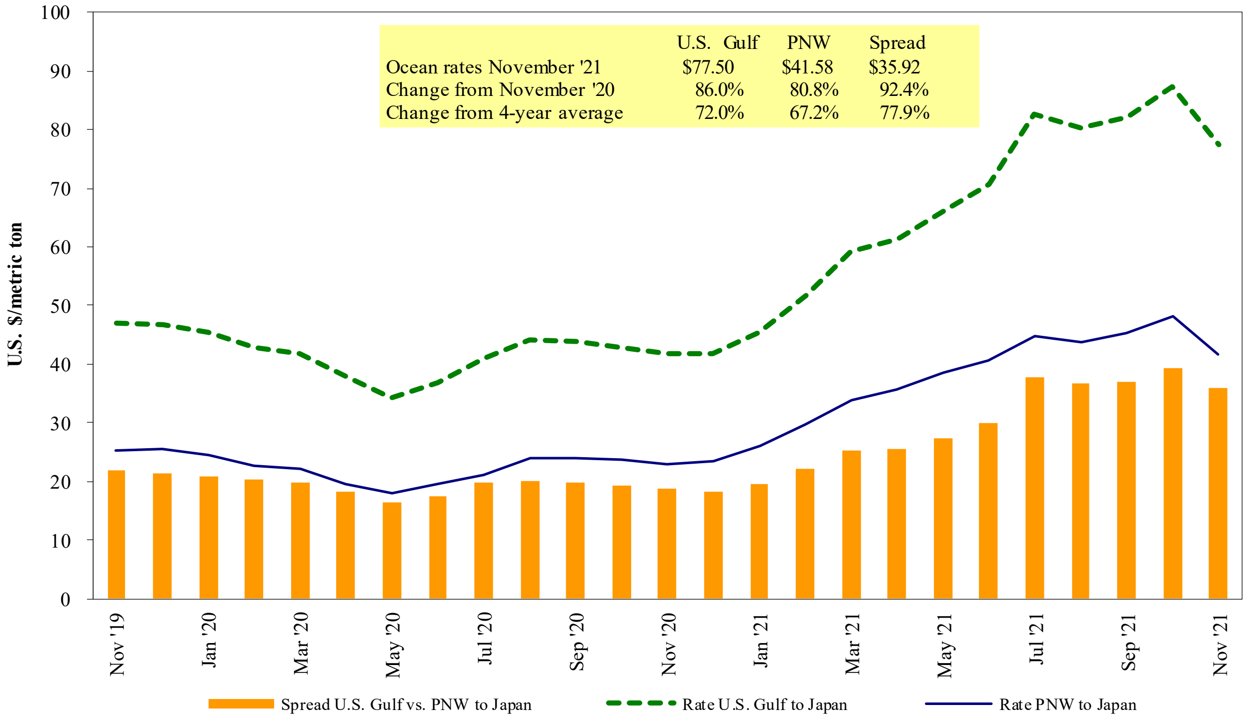
U.S. Gulf[1] vessel loading activity



[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 12/18/2021

Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US$/metric ton)
U.S. Gulf	Japan	Heavy grain	Oct 1/10, 2021	48,000	70.10
U.S. Gulf	Japan	Heavy grain	Aug 21/Sep 9, 2021	50,000	60.90
U.S. Gulf	Japan	Heavy grain	Aug 1/10, 2021	50,000	69.75
U.S. Gulf	Sudan	Wheat	Sep 1/10, 2021	49,000	79.12*
U.S. Gulf	China	Heavy grain	Dec 1/10, 2021	65,000	76.00
U.S. Gulf	China	Heavy grain	Nov 1/10, 2021	66,000	89.00
U.S. Gulf	China	Heavy grain	Oct 1/10, 2021	55,000	81.50
U.S. Gulf	Djibouti	Wheat	Jul 6/16, 2021	5,880	85.70*
U.S. Gulf	S. Korea	Heavy grain	Dec 1/10, 2021	51,000	940.00
PNW	Japan	Wheat	Sep 1, 2021	52,170	56.55*
PNW	Japan	Wheat	Jul 25/ Aug 5, 2021	32,590	64.00
PNW	Taiwan	Wheat	Nov 1/10, 2021	49,580	67.30
PNW	Taiwan	Heavy grain	Aug 20/30, 2021	35,000	64.20*
PNW	Taiwan	Wheat	Aug 1/10, 2021	55,000	54.95
Brazil	N. China	Heavy grain	Jan 1/5, 2022	64,000	58.25
Australia	Japan	Barley	Nov 1/10, 2021	55,000	65.50
River Plate	South Korea	Corn	Oct 21, 2021	67,000	79.80

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

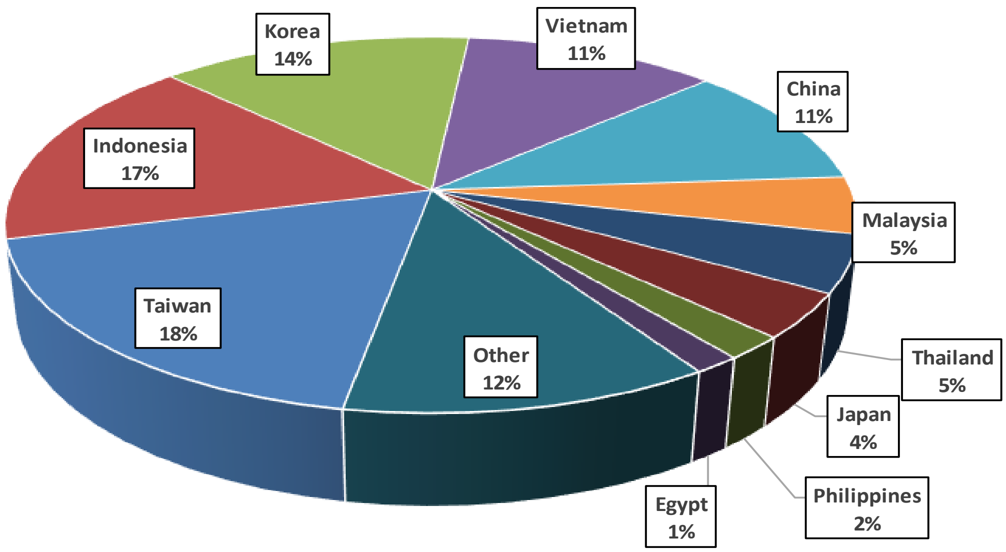
Note: Rates shown are per metric ton (2,204.62 lbs. = 1 metric ton), free on board (F.O.B), except where otherwise indicated; op = option.

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 18

Top 10 destination markets for U.S. containerized grain exports, Jan-Sep 2021

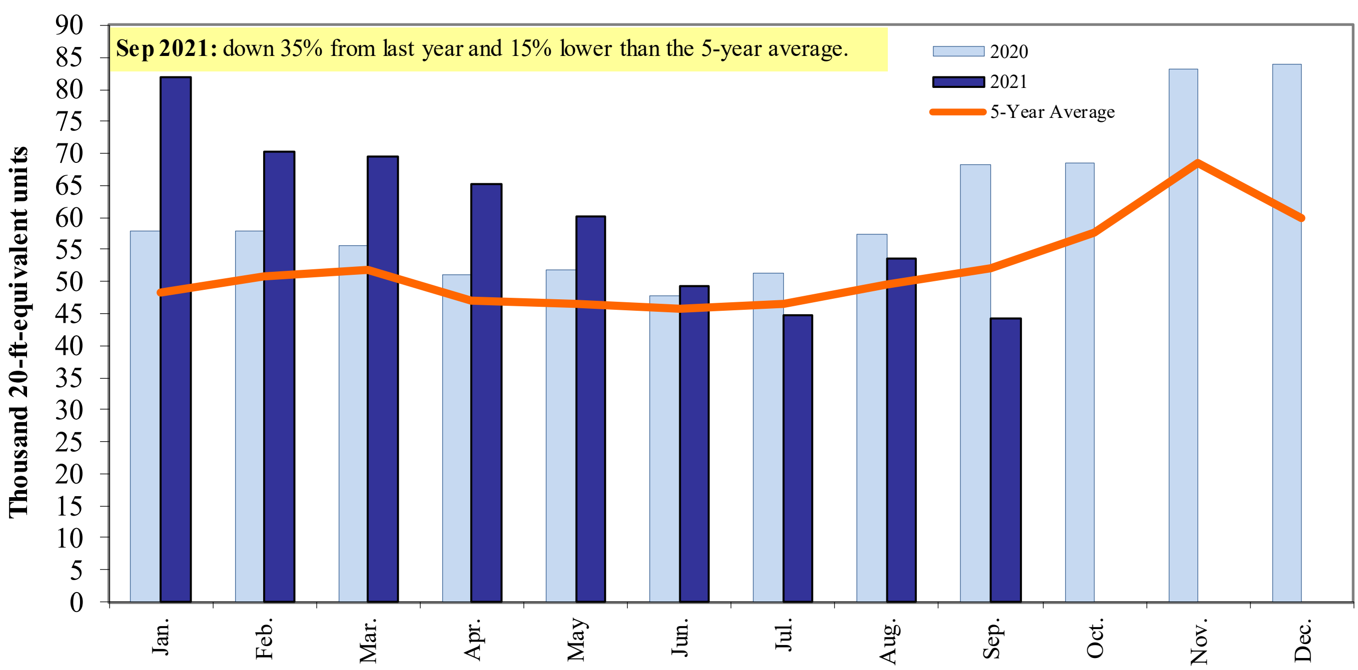


Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 1001, 100190, 1002, 1003 100300, 1004, 100400, 1005, 100590, 1007, 100700, 1102, 110100, 230310, 110220, 110290, 1201, 120100, 230210, 230990, 230330, 120810, and 120190.

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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