USDA Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE

Grain Transportation Report

A weekly publication of the Agricultural Marketing Service
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August 19, 2021

Contents

The next release is August 26, 2021

WEEKLY HIGHLIGHTS

Congress Introduces Legislation To Address Container Shipping Challenges

On August 10, U.S. Representatives John Garamendi (CA) and Dusty Johnson (SD) introduced the "Ocean Shipping Reform Act of 2021." If enacted, this bipartisan legislation would be the first major update of Federal regulations for the global ocean shipping industry since 1998. The bill includes several measures that would address many concerns of containerized agricultural exporters: one new requirement would prohibit ocean carriers from unreasonably declining U.S. exports. Another provision would require carriers and terminals to certify compliance with Federal regulation on each "detention and demurrage" charge. A third measure would authorize the Federal Maritime Commission to self-initiate investigations of ocean carriers' business practices and apply enforcement measures, as appropriate. Over the past 10 months, the deluge of containerized imports to the United States has made it extremely difficult to export containerized agricultural products.

FHWA Announces Funding Opportunity for Innovative Highway Projects

The U.S. Department of Transportation's Federal Highway Administration (FHWA) recently announced up to $10 million in grants will be made available through a notice of funding opportunity for FHWA's Accelerated Innovation Deployment (AID) demonstration program. These funds are used to deploy proven innovations to help maximize limited resources for road and bridge projects of State, local, and tribal governments. The most recently awarded AID grants, announced in May 2021, include funding for projects in two major grain-producing States: Michigan ($977,398) and South Dakota ($1 million). More information on previous AID-funded projects can be found here, and information on how to apply is available here. The closing date for applications is September 28.

STB Sets Grain Car Meeting for August 26

On August 10, the Surface Transportation Board (STB) announced this year's National Grain Car Council (NGCC) meeting will be held virtually on August 26. NGCC's members represent grain shippers and receivers, private rail car owners, rail car manufacturers, and the Class I, II, and III railroads. The meeting will discuss grain transportation issues, including the railroads' preparedness to transport the 2021 grain harvest. To register for the meeting and obtain more information, visit STB's NGCC homepage.

Snapshots by Sector

Export Sales

For the week ending August 5, **unshipped balances** of wheat, corn, and soybeans totaled 13.1 million metric tons (mmt). This was 7 percent lower than last week and 19 percent lower than the same time last year. Net **corn export sales** were 0.378 mmt, up significantly from the past week. Net **soybean export sales** were 0.097 mmt, significantly up from the previous week. Net weekly **wheat export sales** were 0.293 mmt, down 5 percent from last week.

Rail

U.S. Class I railroads originated 18,190 **grain carloads** during the week ending August 7. This was unchanged from the previous week, 17 percent less than last year, and 20 percent lower than the 3-year average.

Average August shuttle **secondary railcar** bids/offers (per car) were $253 below tariff for the week ending August 12. This was $206 less than last week and $553 lower than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending August 14, **barged grain movements** totaled 538,914 tons. This was 1 percent lower than the previous week and 20 percent higher than the same period last year.

For the week ending August 14, 334 grain barges **moved down river**—25 fewer barges than the previous week. There were 512 grain barges **unloaded in New Orleans**, 12 percent lower than the previous week.

Ocean

For the week ending August 12, 34 **oceangoing grain vessels** were loaded in the Gulf—17 percent more than the same period last year. Within the next 10 days (starting August 13), 34 vessels were expected to be loaded—19 percent fewer than the same period last year.

As of August 12, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $79.00. This was unchanged from the previous week. The rate from the Pacific Northwest to Japan was $43.00 per mt, unchanged from the previous week.

Fuel

For the week ending August 16, the U.S. average **diesel fuel price** decreased 0.8 cents from the previous week to $3.356 per gallon, 92.9 cents above the same week last year.

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Feature Article/Calendar

Year-to-Date Review of Barged Grain Movements and Rates

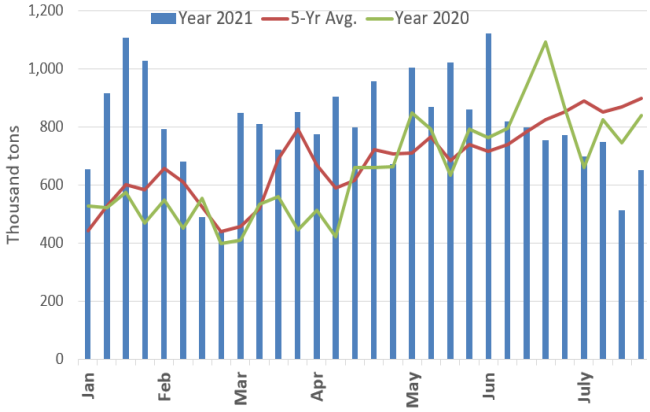
The Mississippi River System is the Nation's primary set of waterways to move grain from production areas to export ports in the U.S. Gulf region.[1] For the week ending August 14, YTD downbound barged grain volumes on the Mississippi River reached 25.2 million tons—20 percent higher than 2020 and 14 percent higher than the previous 5-year average (***GTR* table 10**). Strong demand for exports from China has been the main driving force behind these robust volumes. However, high barge tonnages have so far failed to buoy spot freight rates. Rates have mostly followed historical patterns, declining moderately since the beginning of the year. This article reviews developments in barged grain movements and freight rates for 2021 to date.

Strong Barged Grain Movements

Despite wide fluctuations, weekly movements in 2021 stayed high—or at least on par with historical averages—until June. By the beginning of January, barges had already moved a record 16.3 million tons of grain for MY 2020/21, which is 35 percent higher than by the same time in MY 2019/20 and 17 percent higher than the average of the previous 5 years. In mid-January—despite the cold weather and seasonal closure of the Upper Mississippi River—weekly barged grain movements reached a record-high 1.1 million tons.

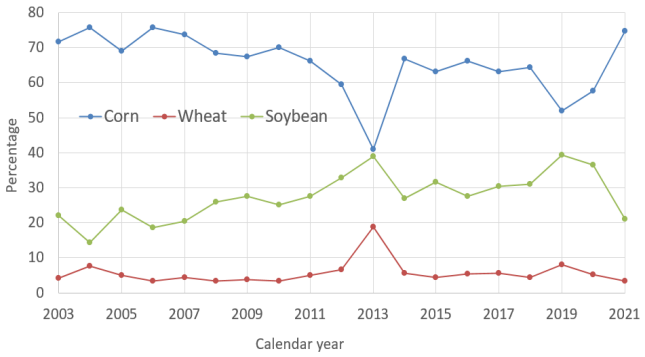
From late January through late February, severe winter weather completely halted traffic on the Upper Mississippi and barged grain movements fell sharply (fig. 1). In March, better weather and strong corn demand from China once again raised barged grain movements. Movements peaked at roughly 1.1 million tons (far above the 5-year average) in the first week of June. In the second week of June, weekly volumes again started to fall, dropping to levels below historical patterns and have yet to recover. This trend runs counter to the typical summer rise in volumes that occurs when producers and shippers move old crops out of storage to prepare for the new harvest. Despite low weekly tonnages between June and July, 2021 still accumulated record-high year-to-date (YTD) volumes at the end of July (24.1 million tons).

Figure 1. Year-to-date 2021 weekly downbound barged grain tonnages



Source: U.S. Army Corps of Engineers, Lock Performance Monitoring System.

Figure 2. January-to-July composition of barged grain tonnage by crop, 2003-21.



Source: U.S. Army Corps of Engineers, Lock Performance Monitoring System

The composition of 2021 barged grain movements resembled that of previous years, with corn forming the largest share. Corn's share of YTD total tonnages reached 75 percent in 2021, about 14 percent higher than the average of the previous 5 years. Meanwhile the 2021 share of soybeans (21 percent) dropped 12 percent from the 5-year average (fig. 2). Together, corn and soybeans constituted more than 96 percent of total downbound barged grain movements on the Mississippi River.

Moderate Spot Freight Rates Persist Despite High Volumes

Barge spot rates in St. Louis have trended moderately down from the beginning of the year through the end of July (fig. 3, upper panel). The St. Louis spot rates fell from 505 percent of tariff ($20 per ton) in November 2020 to 300 percent of tariff ($12 per ton) in January, before dropping further to 200 percent of tariff ($8 per ton) in June.[2] The YTD average spot freight rate was 252 percent of tariff at the end of July—26 percent higher than YTD at the same

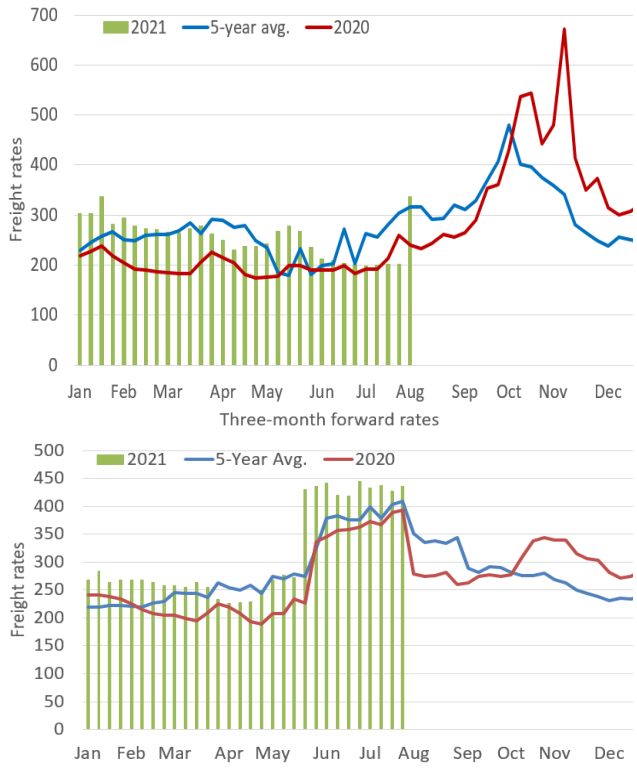
[1] The Mississippi River System comprises the Mississippi, Arkansas, Illinois, Ohio, and Tennessee Rivers, and Gulf Intracoastal Waterway.
[2] See ***GTR* figure 9** and this document for the calculation of barge freight rates.

time in 2020 and equal to the previous-5-year average (fig. 3). Despite higher fuel and operational costs (especially in labor), these spot rate trends reflect the barge industry's ability to absorb the record-high movements.

On the supply side, there were enough barges to support previously committed services, as well as nearby, ad hoc demand. One factor that raised barge availability was the addition of 385 new jumbo-covered hopper barges—the type most often used for moving grain—to the Mississippi River System. This was more than double the number of such barges in 2019.[1] Likewise, declining barged coal movements added yet more empty barges to the market, providing more than sufficient empty barges to fulfill the industry's previous commitments.

On the demand side, a softening demand for soybean movements partially offset the strong demand to move corn to export markets. Higher-than-usual fourth-quarter 2020 forward rates (*Grain Transportation Report*, January 28, 2021) likely reflected that the forward market (rather than the spot market) had met much of the demand for the barge services for the rest of MY 2020/21. Because grain shippers had purchased sufficient commitments in advance—to move the old crop in 2021—spot rates stayed soft. Relatively stable river conditions also created little incentive for the shippers to book nearby spot services since the barge industry was able to deliver previously committed empty barges on time.[2]

Figure 3. Barge Freight Rates (St. Louis)



Note: Freight rates are a percentage of St. Louis benchmark rate: $3.99/ton,
Source: U.S. Army Corps of Engineers, Lock Performance Monitoring System.

The 3-month forward freight market followed the usual historical pattern. It rose sharply in late-May and early June, anticipating rising demand with the harvest of new crops. However, this year's optimistic market outlook has exceeded that of previous years—150 percent of tariff higher in late May ($6 per ton more than the previous 5-year average for the same period) and 50 percent of tariff higher from June through July ($2 per ton more than the historical average). This year's unusually bullish outlook is mostly accounted for by a combination of new crop sales to China in May, optimistic projections of U.S. crop production and export sales, and updates on adverse weather conditions in South American grain-producing countries.

Looking Forward

In summary, the first half of 2021 has witnessed an overall robust demand for barged grain movements (mostly corn). The average spot freight rates, although higher than 2020's average, did not increase with volumes, as barge supply has been adequate to handle the increased demand for the nearby old crop movements (other than previously committed services). Looking ahead, the strong forward rates for the new crop year suggest the industry's overall optimistic projection for a strong demand for barged grain movements in MY 2021/22, despite potential challenges from rising ocean freight rates, competition from domestic crop demand (such as ethanol and soybean crushing), and overall market uncertainty. *Matt.Chang@usda.gov*

[1] Source: WorkBoat, March 2, 2021.

[2] To date for 2021, Mississippi River traffic has been fairly stable, despite the weather disruptions of February; the May 11-to-14 closure to barge traffic due to the closure of Interstate-40 bridge in Memphis; and occasional high water that posed temporary logistical challenges and delays. Although these disruptions may have fueled short-term price fluctuations, none were sufficiently forceful to explain the more long-term lackluster performance of spot rates.

Grain Transportation Indicators

Table 1

Grain transport cost indicators[1]

	Truck	Rail		Barge	Ocean	
For the week ending		Non-Shuttle	Shuttle		Gulf	Pacific
08/18/21	225	290	214	206	353	305
08/11/21	226	290	221	193	353	305

[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)

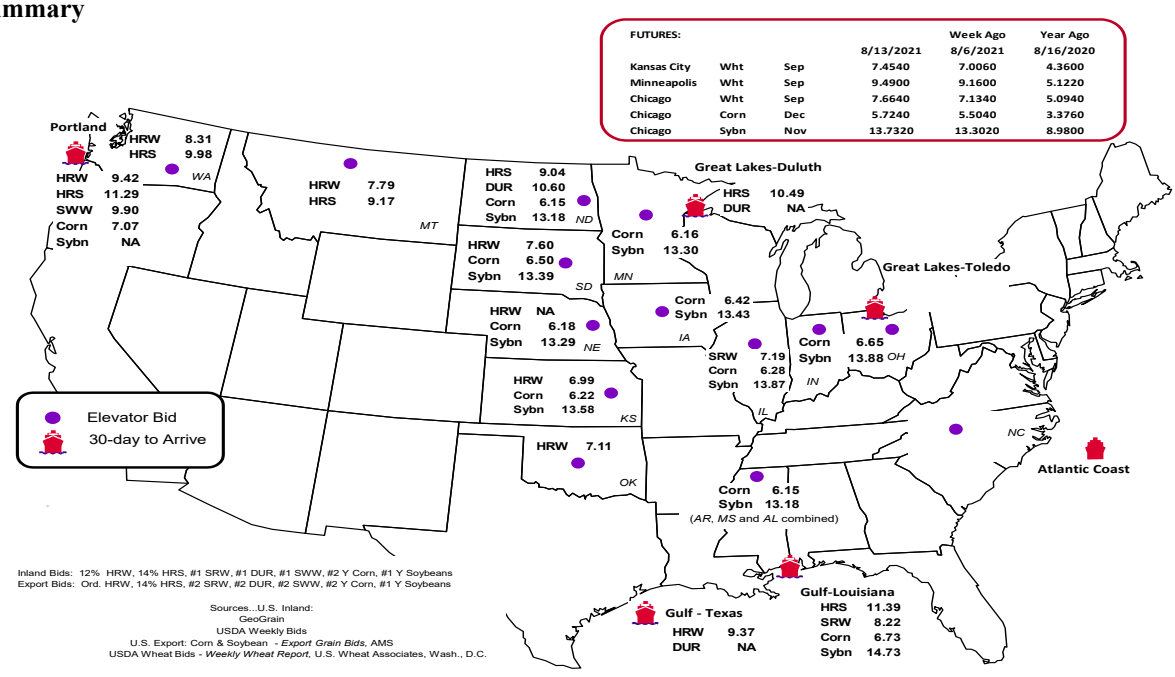
Commodity	Origin–destination	8/13/2021	8/6/2021
Corn	IL–Gulf	-0.45	-0.37
Corn	NE–Gulf	-0.55	-0.46
Soybean	IA–Gulf	-1.30	-1.18
HRW	KS–Gulf	-2.38	-2.37
HRS	ND–Portland	-2.25	-2.14

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]
8/11/2021[p]	427	509	2,336	71	3,343	8/7/2021	3,184
8/04/2021[r]	319	679	3,484	105	4,587	7/31/2021	2,999
2021 YTD[r]	35,944	43,617	183,064	10,063	272,688	2021 YTD	88,773
2020 YTD[r]	13,168	27,599	146,181	6,188	193,136	2020 YTD	78,671
2021 YTD as % of 2020 YTD	273	158	125	163	141	% change YTD	113
Last 4 weeks as % of 2020[2]	48	79	72	26	69	Last 4wks. % 2020	96
Last 4 weeks as % of 4-year avg.[2]	44	77	62	15	61	Last 4wks. % 4 yr.	106
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.

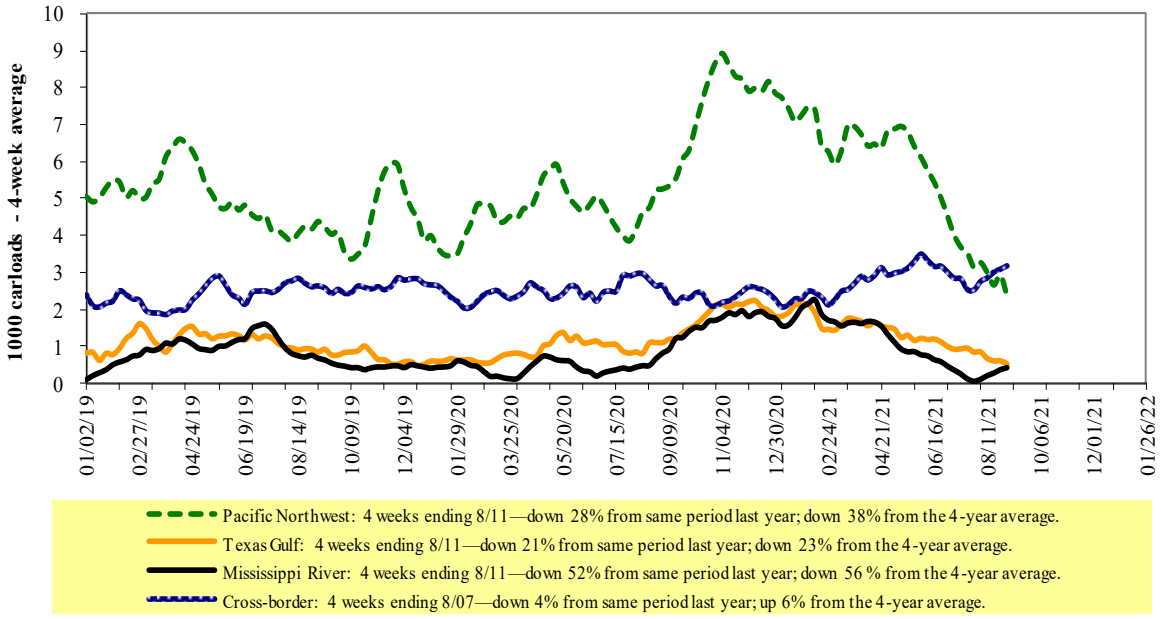
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available; wks. = weeks; avg. = average.

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	
8/7/2021	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,433	2,245	8,061	938	5,513	18,190	2,494	3,102
This week last year	1,340	2,681	10,882	1,060	5,957	21,920	5,121	4,776
2021 YTD	57,849	79,339	372,046	34,200	193,817	737,251	131,426	157,291
2020 YTD	52,319	75,775	341,423	32,754	160,908	663,179	129,591	145,280
2021 YTD as % of 2020 YTD	111	105	109	104	120	111	101	108
Last 4 weeks as % of 2020*	91	97	84	112	99	91	59	80
Last 4 weeks as % of 3-yr. avg.**	81	89	78	105	101	86	69	83
Total 2020	91,659	130,015	613,630	57,782	296,701	1,189,787	238,357	261,778

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

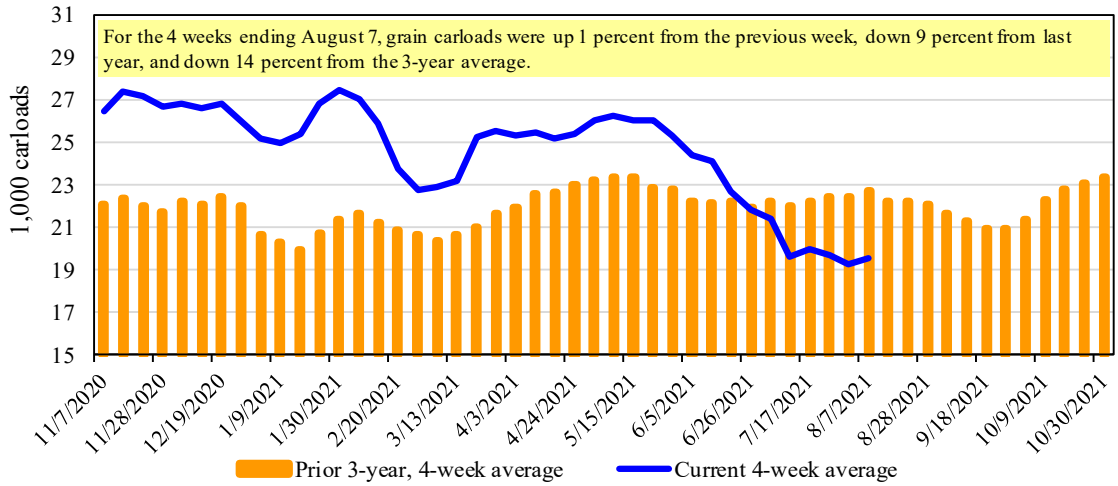
**The past 4 weeks as a percent of the same period from the prior 3-year average. YTD = year-to-date; avg. = average; yr. = year.

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							
8/12/2021		Aug-21	Aug-20	Sep-21	Sep-20	Oct-21	Oct-20	Nov-21	Nov-20
BNSF[3]	COT grain units	no bids	no offer	0	0	0	0	no bids	no bids
	COT grain single-car	no bids	no offer	0	0	no bids	0	0	0
UP[4]	GCAS/Region 1	no offer	no offer	no offer	no offer	no offer	no offer	n/a	n/a
	GCAS/Region 2	no offer	no offer	no offer	no offer	no offer	no offer	n/a	n/a

[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.

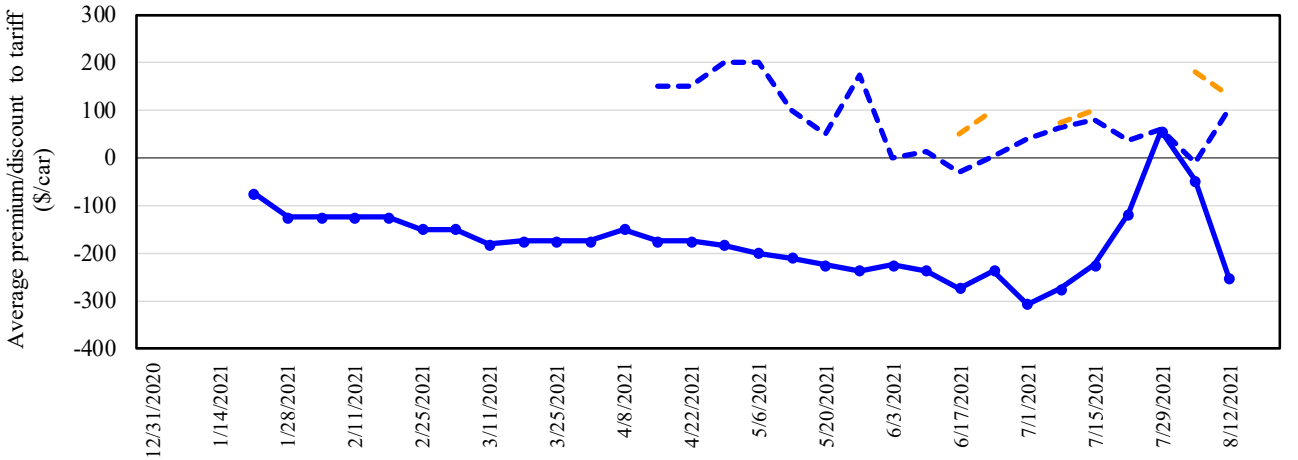
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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 August 2021, secondary market

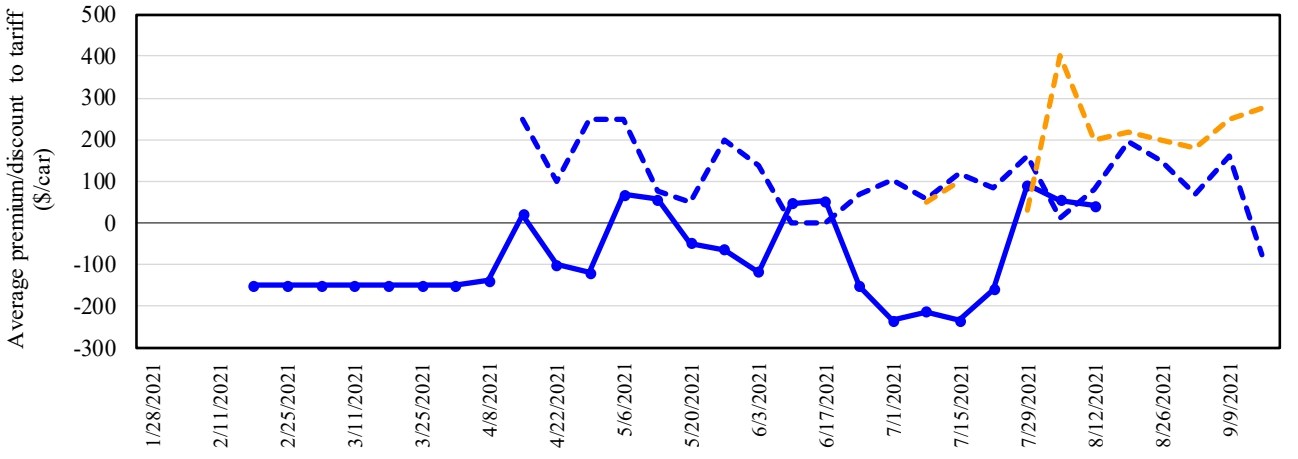


8/12/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	-$256	-$250

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers fell $206 this week and are $310 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 September 2021, secondary market



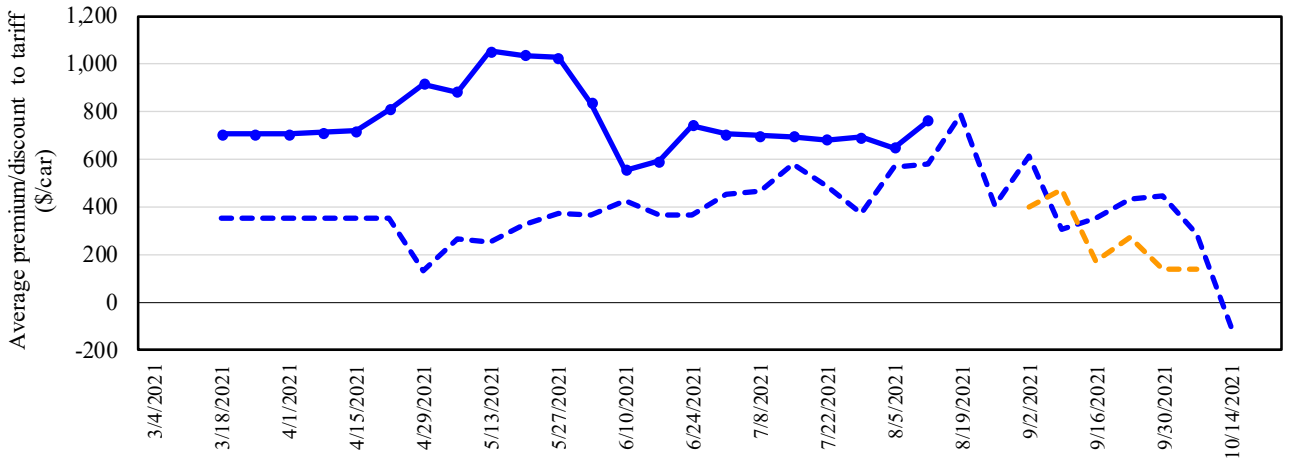
8/12/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$288	-$206

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers fell $14 this week and are $50 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 October 2021, secondary market



8/12/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$724	$800

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers rose $114 this week and are $292 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: 8/12/2021	Delivery period					
		Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-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**	**(256)**	**288**	**724**	**n/a**	**n/a**	**200**
	Change from last week	(12)	179	108	n/a	n/a	0
	Change from same week 2020	(606)	(325)	(339)	n/a	n/a	n/a
	UP-Pool	**(250)**	**(206)**	**800**	**n/a**	**n/a**	**n/a**
	Change from last week	(400)	(206)	119	n/a	n/a	n/a
	Change from same week 2020	(500)	(606)	(50)	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.

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]

August 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	$121	$37.90	$1.03	5
	Grand Forks, ND	Duluth-Superior, MN	$3,658	$0	$36.33	$0.99	-13
	Wichita, KS	Los Angeles, CA	$7,115	$0	$70.66	$1.92	0
	Wichita, KS	New Orleans, LA	$4,525	$214	$47.06	$1.28	3
	Sioux Falls, SD	Galveston-Houston, TX	$6,851	$0	$68.03	$1.85	0
	Colby, KS	Galveston-Houston, TX	$4,801	$234	$50.00	$1.36	3
	Amarillo, TX	Los Angeles, CA	$5,121	$326	$54.09	$1.47	4
Corn	Champaign-Urbana, IL	New Orleans, LA	$3,900	$241	$41.13	$1.04	4
	Toledo, OH	Raleigh, NC	$7,833	$0	$77.79	$1.98	15
	Des Moines, IA	Davenport, IA	$2,455	$51	$24.89	$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	$150	$40.22	$1.02	5
	Des Moines, IA	Los Angeles, CA	$5,780	$438	$61.74	$1.57	7
Soybeans	Minneapolis, MN	New Orleans, LA	$3,631	$256	$38.60	$1.05	6
	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	$241	$48.52	$1.32	4
Shuttle train							
Wheat	Great Falls, MT	Portland, OR	$4,193	$0	$41.64	$1.13	4
	Wichita, KS	Galveston-Houston, TX	$4,236	$0	$42.07	$1.14	0
	Chicago, IL	Albany, NY	$6,376	$0	$63.32	$1.72	-10
	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	$384	$63.51	$1.73	4
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	$241	$40.33	$1.02	4
	Lincoln, NE	Galveston-Houston, TX	$3,880	$0	$38.53	$0.98	0
	Des Moines, IA	Amarillo, TX	$4,320	$189	$44.78	$1.14	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	$278	$51.18	$1.39	4
	Toledo, OH	Huntsville, AL	$4,945	$0	$49.11	$1.34	3
	Grand Island, NE	Portland, OR	$5,260	$393	$56.14	$1.53	5

[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: August 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	$7,699	$0	$78.67	$2.14	4
	OK	Cuautitlan, EM	$6,813	$167	$71.32	$1.94	3
	KS	Guadalajara, JA	$7,531	$681	$83.91	$2.28	3
	TX	Salinas Victoria, NL	$4,347	$102	$45.46	$1.24	2
Corn	IA	Guadalajara, JA	$8,902	$592	$97.00	$2.46	2
	SD	Celaya, GJ	$8,140	$0	$83.17	$2.11	0
	NE	Queretaro, QA	$8,300	$351	$88.39	$2.24	3
	SD	Salinas Victoria, NL	$6,905	$0	$70.55	$1.79	0
	MO	Tlalnepantla, EM	$7,665	$342	$81.81	$2.08	4
	SD	Torreon, CU	$7,690	$0	$78.57	$1.99	0
Soybeans	MO	Bojay (Tula), HG	$8,547	$555	$92.99	$2.53	2
	NE	Guadalajara, JA	$9,157	$582	$99.50	$2.71	2
	IA	El Castillo, JA	$9,410	$0	$96.15	$2.61	-1
	KS	Torreon, CU	$8,014	$406	$86.03	$2.34	3
Sorghum	NE	Celaya, GJ	$7,772	$527	$84.79	$2.15	3
	KS	Queretaro, QA	$8,108	$209	$84.97	$2.16	2
	NE	Salinas Victoria, NL	$6,713	$168	$70.30	$1.78	2
	NE	Torreon, CU	$7,092	$374	$76.28	$1.94	2

[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.

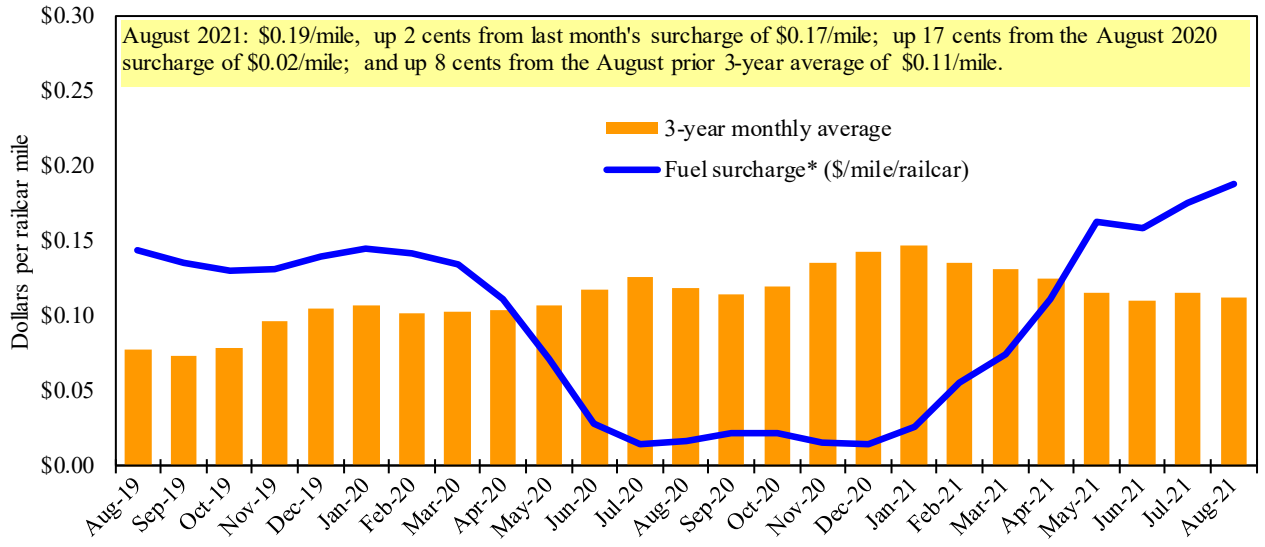
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

[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.

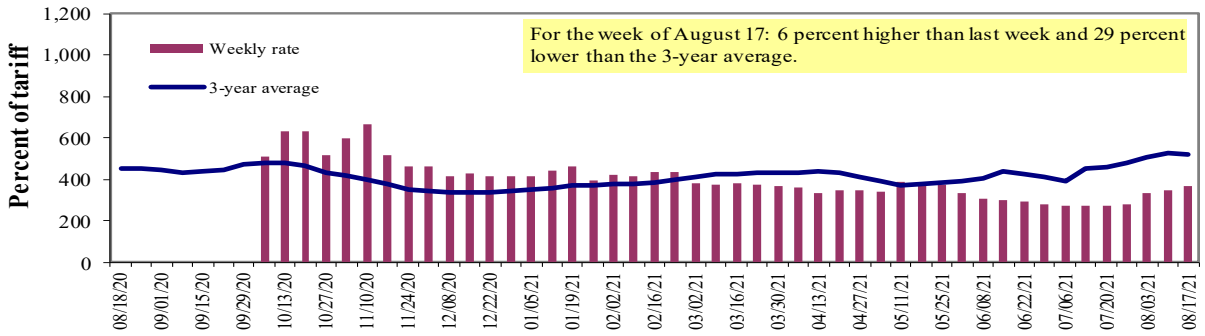
* Beginning January 2009, the Canadian Pacific fuel surcharge is computed by a monthly average of the bi-weekly fuel surcharge.

**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.
The 3-yr avg counts the avearge of 2018 and 2019. 2020 data is not available. *Source: USDA, Agricultural Marketing Service.

Table 9
Weekly barge freight rates: Southbound only

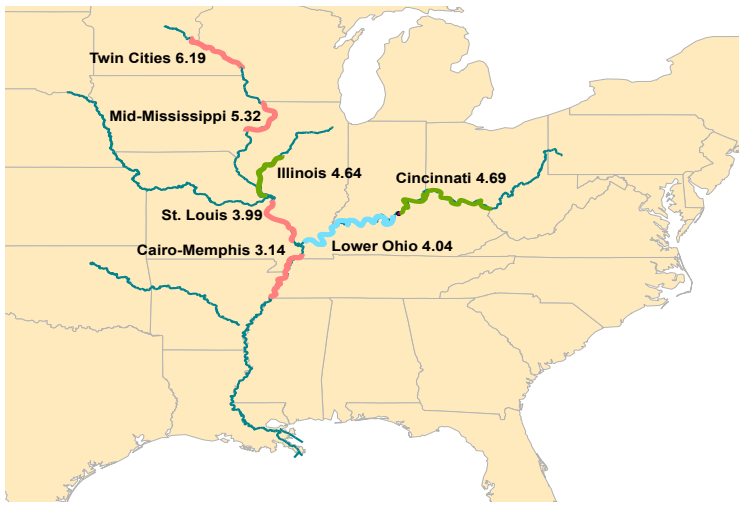
		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate[1]	8/17/2021	442	374	370	282	319	319	273
	8/10/2021	437	368	348	260	253	253	251
$/ton	8/17/2021	27.36	19.90	17.17	11.25	14.96	12.89	8.57
	8/10/2021	27.05	19.58	16.15	10.37	11.87	10.22	7.88
Current week % change from the same week:								
	Last year	3	1	-	16	4	4	18
	3-year avg. [2]	-14	-24	-29	-18	-9	-9	-14
Rate[1]	September	537	514	491	438	493	493	423
	November	511	490	455	357	440	440	319

[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.
ILL River 3-year avg. is the 4-week moving average of 2018 and 2019. Data for2020 is not available. Source: USDA, Agricultural Marketing Service.

Figure 9
Benchmark tariff rates

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

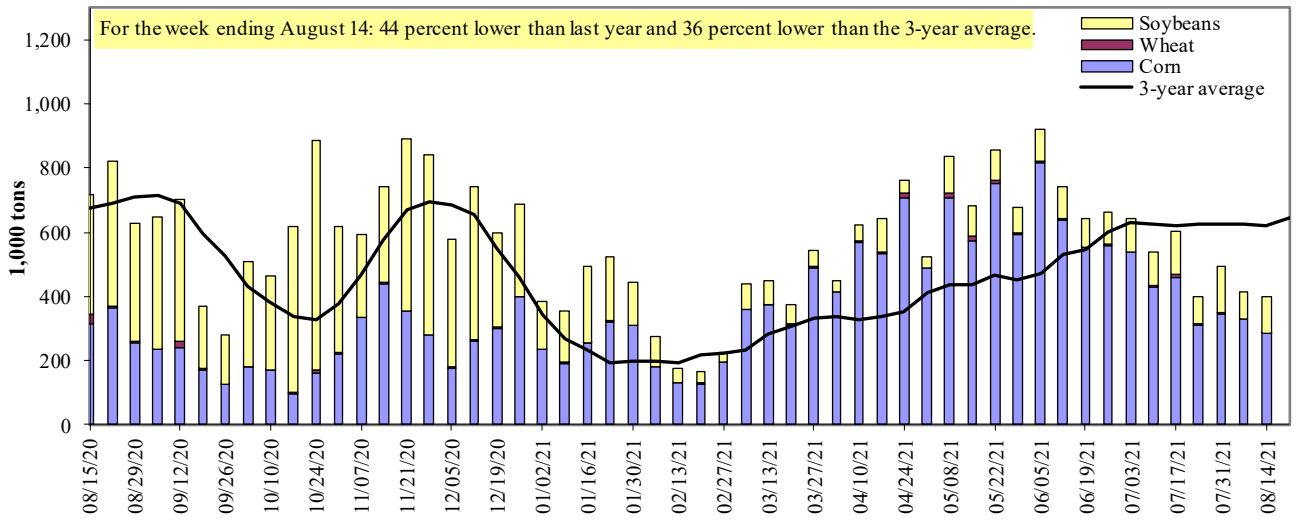
Select applicable index from market quotes are included in tables on this page. The 1976 benchmark rates per ton are provided in map.



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 08/14/2021	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	132	0	71	0	203
Winfield, MO (L25)	257	2	105	0	364
Alton, IL (L26)	240	2	126	0	368
Granite City, IL (L27)	284	2	113	0	398
Illinois River (La Grange)	27	0	47	0	74
Ohio River (Olmsted)	59	14	45	0	119
Arkansas River (L1)	0	16	6	0	22
Weekly total - 2021	343	32	164	0	539
Weekly total - 2020	258	47	316	5	626
2021 YTD[1]	18,528	1,070	5,361	203	25,161
2020 YTD[1]	11,736	1,225	7,959	102	21,022
2021 as % of 2020 YTD	158	87	67	198	120
Last 4 weeks as % of 2020[2]	97	103	36	48	69
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.

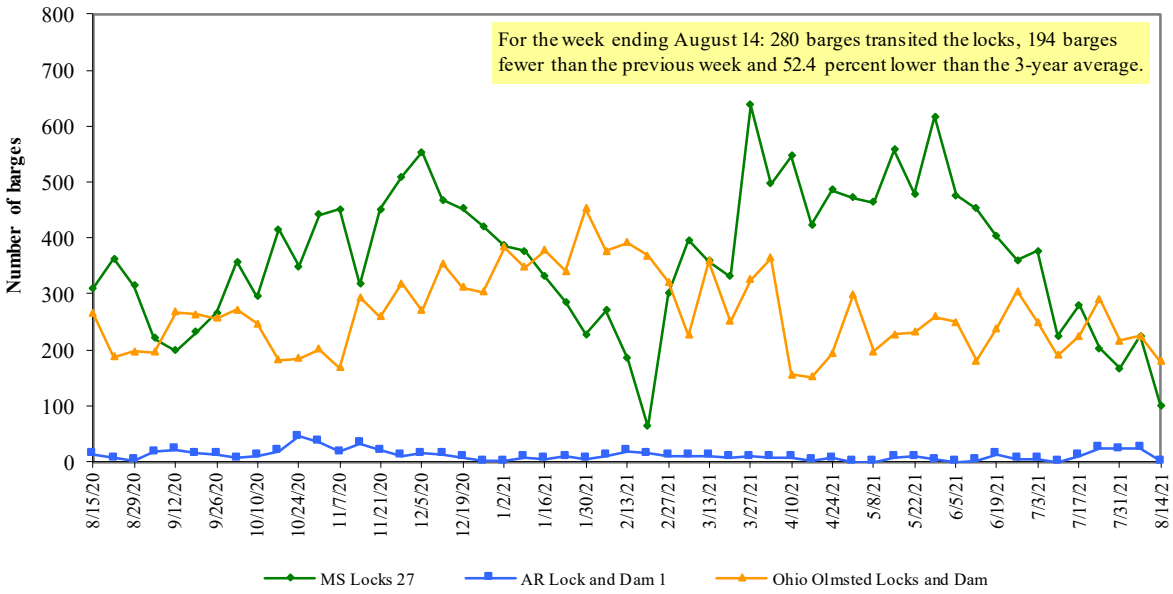
[2] As a percent of same period in 2020.

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

Source: U.S. Army Corps of Engineers.

Figure 11

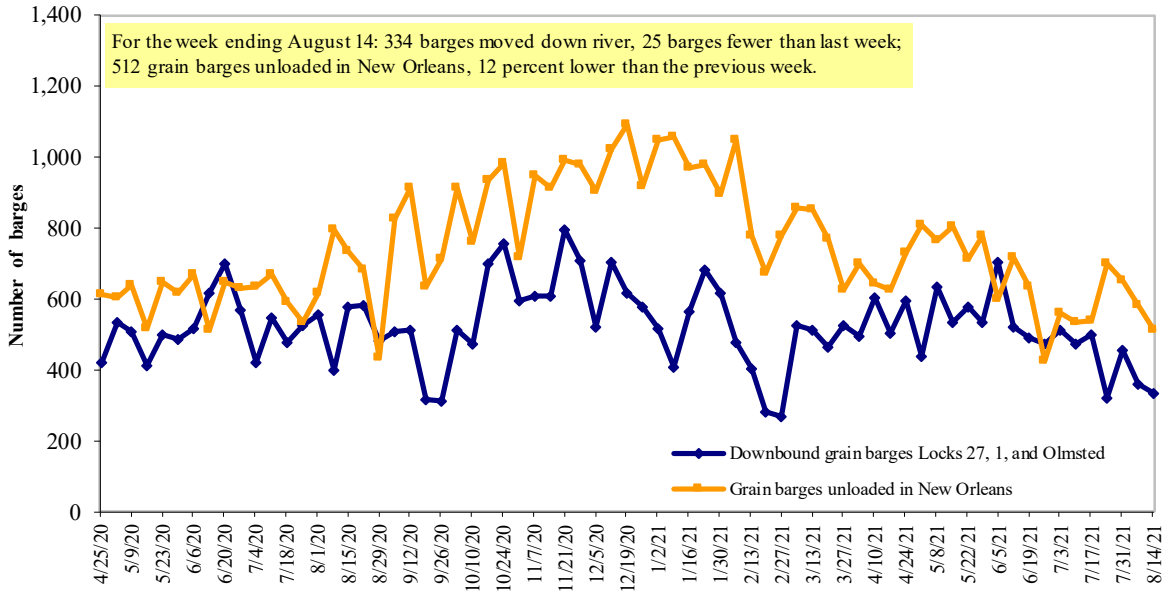
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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 8/16/2021 (U.S. $/gallon)

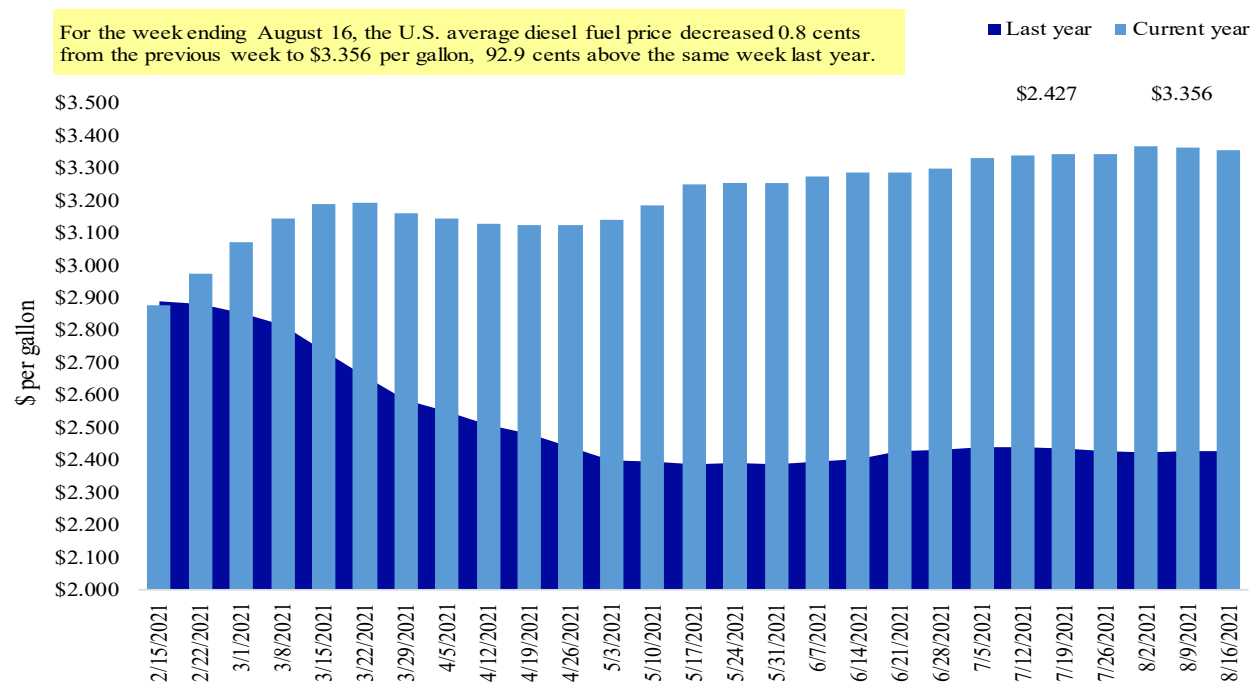
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.316	-0.012	0.808
	New England	3.271	0.009	0.644
	Central Atlantic	3.485	-0.008	0.801
	Lower Atlantic	3.212	-0.018	0.847
II	Midwest	3.259	-0.012	0.951
III	Gulf Coast	3.073	-0.010	0.896
IV	Rocky Mountain	3.657	-0.018	1.292
V	West Coast	4.029	0.020	1.071
	West Coast less California	3.682	0.007	1.096
	California	4.319	0.031	1.055
Total	United States	3.356	-0.008	0.929

[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]									
8/5/2021	1,625	1,004	1,443	881	8	4,962	5,518	2,572	13,052
This week year ago	1,558	678	1,853	1,318	187	5,595	4,138	6,446	16,179
Cumulative exports-marketing year[2]									
2020/21 YTD	1,403	549	1,058	691	42	3,744	64,583	59,445	127,772
2019/20 YTD	2,263	351	1,325	748	209	4,896	40,022	40,997	85,915
YTD 2020/21 as % of 2019/20	62	157	80	92	20	76	161	145	149
Last 4 wks. as % of same period 2019/20*	107	151	80	77	4	93	171	43	93
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 08/05/2021	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	2,516	15,430	14,423	7	14,869
Japan	1,188	11,064	9,904	12	11,221
Columbia	310	3,949	4,750	(17)	4,830
Korea	65	3,527	2,693	31	4,011
China	10,744	22,880	2,212	934	909
Top 5 importers	**14,824**	**56,850**	**33,982**	**67**	**35,840**
Total U.S. corn export sales	**18,089**	**70,101**	**44,160**	**59**	**49,983**
% of projected exports	30%	99%	98%		
Change from prior week[2]	**602**	**378**	**377**		
Top 5 importers' share of U.S. corn export sales	82%	81%	77%		72%
USDA forecast August 2021	**61,069**	**70,611**	**45,216**	**56**	
Corn use for ethanol USDA forecast, August 2021	**132,080**	**128,905**	**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 08/05/2021	Total commitments[2]			% change	Exports[3]
	2021/22	2020/21	2019/20	current MY	3-yr. avg.
	next MY	current MY	last MY	from last MY	2017-19
			1,000 mt -		- 1,000 mt -
China	4,714	35,870	16,788	114	19,106
Mexico	1,084	4,804	4,729	2	4,591
Egypt	65	2,777	3,857	(28)	2,980
Indonesia	14	2,356	2,296	3	2,360
Japan	171	2,357	2,466	(4)	2,288
Top 5 importers	**6,047**	**48,164**	**30,137**	**60**	**31,324**
Total U.S. soybean export sales	**11,723**	**62,017**	**47,443**	**31**	**49,352**
% of projected exports	21%	101%	104%		
change from prior week[2]	**1,120**	**97**	**502**		
Top 5 importers' share of U.S. soybean export sales	52%	78%	64%		**63%**
USDA forecast, August 2021	**55,995**	**61,580**	**45,749**	**135**	

[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 08/05/2021	Total Commitments[2]		% change	Exports[3]
	2021/22	2020/21	current MY	3-yr. avg.
	current MY	last MY	from last MY	2018-20
		1,000 mt -		- 1,000 mt -
Mexico	1,456	1,006	45	3,388
Philippines	1,292	1,413	(9)	3,121
Japan	888	1,017	(13)	2,567
Korea	503	703	(28)	1,501
Nigeria	659	535	23	1,490
China	612	1,100	(44)	1,268
Taiwan	294	467	(37)	1,187
Indonesia	0	347	(100)	1,131
Thailand	175	263	(34)	768
Italy	72	339	(79)	681
Top 10 importers	**5,951**	**7,189**	(17)	**17,102**
Total U.S. wheat export sales	**8,705**	**10,491**	(17)	**24,617**
% of projected exports	37%	39%		
change from prior week[2]	**293**	**368**		
Top 10 importers' share of U.S. wheat export sales	68%	69%		69%
USDA forecast, August 2021	**23,842**	**27,030**	(12)	

[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 08/12/21	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	294	414	71	9,649	10,067	96	79	92	15,966
Corn	59	0	n/a	12,322	6,887	179	71	69	9,969
Soybeans	0	0	n/a	3,758	2,867	131	0	0	14,028
Total	**353**	**414**	**85**	**25,728**	**19,821**	**130**	**73**	**67**	**39,963**
Mississippi Gulf									
Wheat	95	109	87	1,981	2,399	83	152	128	3,422
Corn	614	502	122	29,692	18,932	157	124	121	28,781
Soybeans	250	48	522	11,113	13,863	80	25	24	38,013
Total	**959**	**659**	**146**	**42,786**	**35,194**	**122**	**79**	**76**	**70,215**
Texas Gulf									
Wheat	36	105	34	2,566	2,844	90	120	118	4,248
Corn	0	0	n/a	322	497	65	0	0	723
Soybeans	0	0	n/a	656	7	n/a	n/a	0	2,098
Total	**36**	**105**	**34**	**3,544**	**3,347**	**106**	**95**	**93**	**7,068**
Interior									
Wheat	27	57	48	1,838	1,417	130	158	173	2,263
Corn	69	231	30	5,943	5,407	110	95	95	8,683
Soybeans	41	60	69	3,635	4,029	90	50	47	7,274
Total	**138**	**348**	**40**	**11,416**	**10,853**	**105**	**85**	**84**	**18,220**
Great Lakes									
Wheat	11	0	n/a	264	425	62	13	10	891
Corn	0	0	n/a	55	26	214	64	75	111
Soybeans	0	11	0	67	165	41	32	36	1,111
Total	**11**	**11**	**93**	**386**	**617**	**63**	**28**	**27**	**2,113**
Atlantic									
Wheat	1	3	40	91	18	509	110	290	65
Corn	0	0	n/a	14	8	174	n/a	n/a	33
Soybeans	1	1	48	1,071	473	227	20	10	1,870
Total	**2**	**4**	**42**	**1,176**	**499**	**236**	**37**	**23**	**1,968**
U.S. total from ports*									
Wheat	464	688	67	16,389	17,170	95	97	104	26,854
Corn	742	732	101	48,347	31,757	152	103	102	48,301
Soybeans	292	121	242	20,300	21,404	95	29	25	64,394
Total	**1,498**	**1,541**	**97**	**85,036**	**70,331**	**121**	**77**	**74**	**139,548**

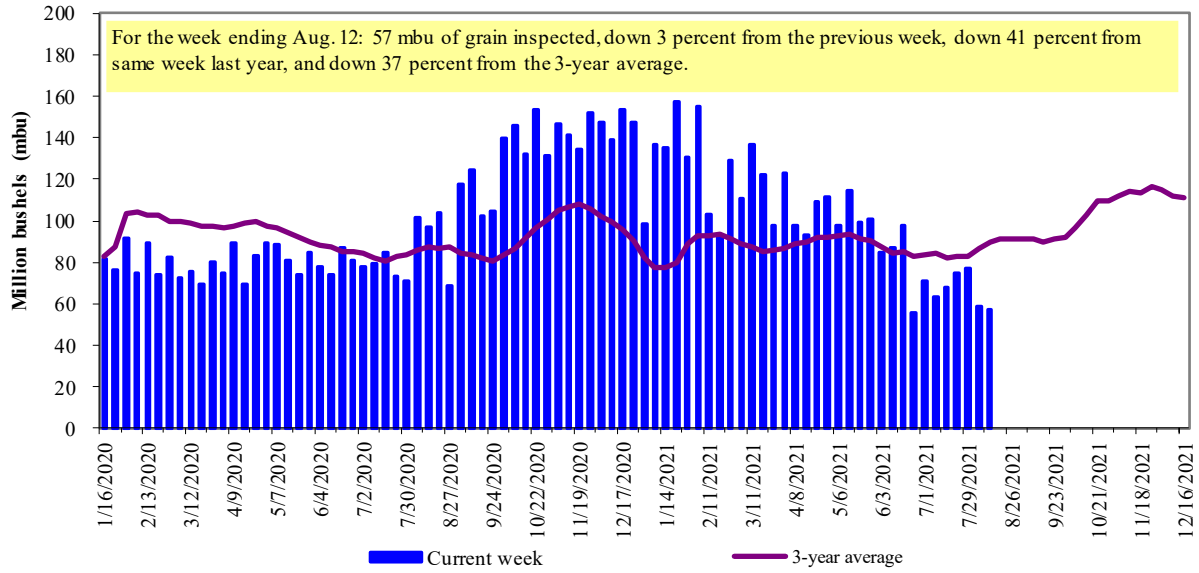
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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)

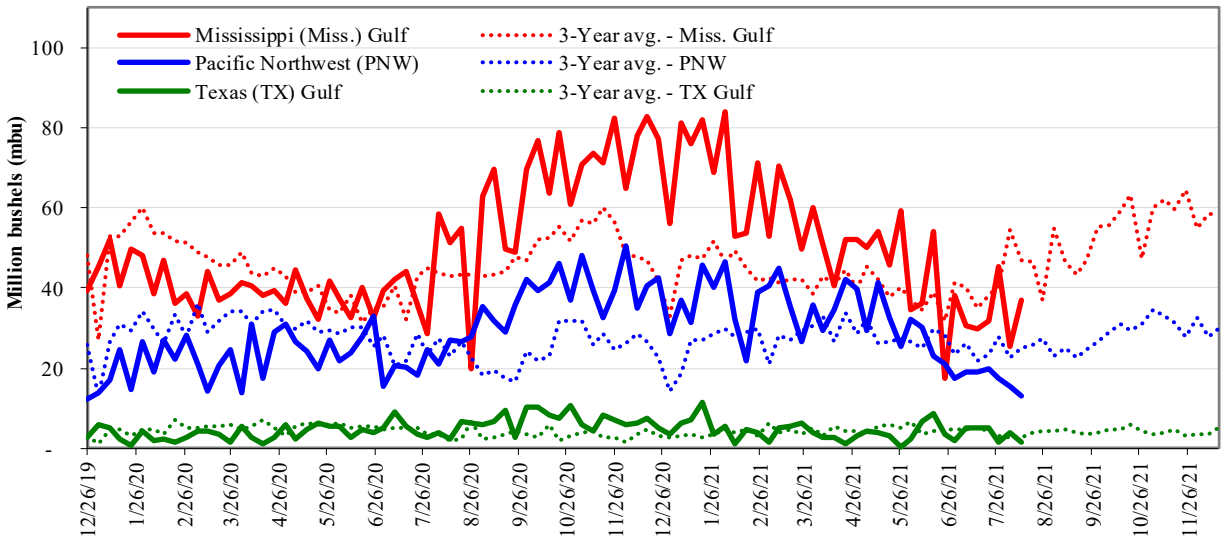


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

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



Week ending 08/12/21 inspections (mbu):	
MS Gulf:	36.9
PNW:	13.1
TX Gulf:	1.3

Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last wk:	up 44	down 66	up 30	down 14
Last Year (same wk):	down 28	down 46	down 29	down 51
3-yr avg. (4-wk. mov. Avg):	down 18	down 59	down 21	down 47

Source: USDA, Federal Grain Inspection Service.

Ocean Transportation

Table 17

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

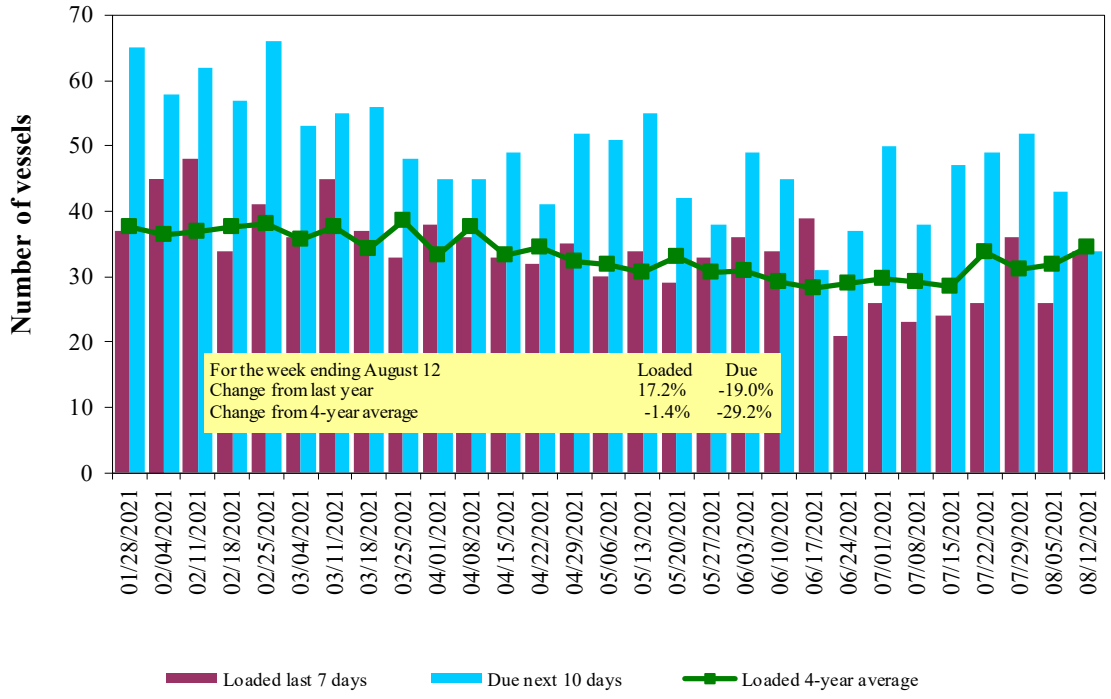
	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
8/12/2021	31	34	34	11
8/5/2021	24	26	43	16
2020 range	(22…60)	(23...46)	(34...68)	(7…24)
2020 average	37	33	49	15

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

Source: USDA, Agricultural Marketing Service.

Figure 16

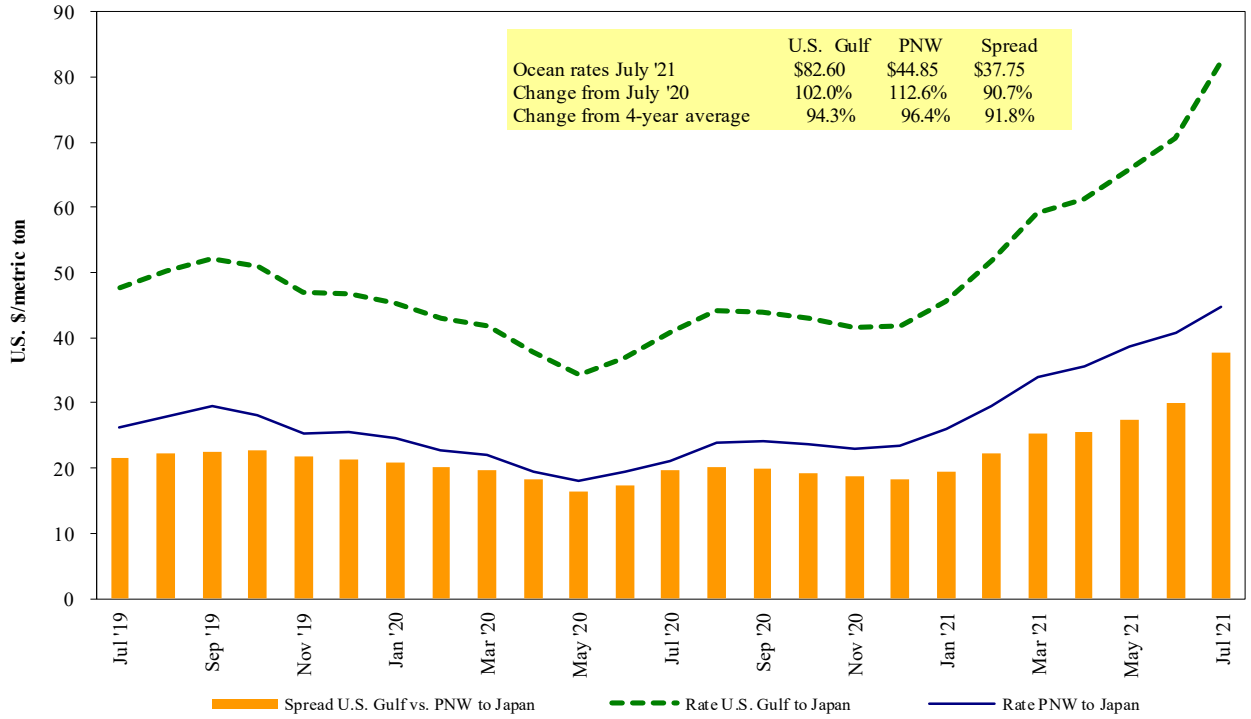
U.S. Gulf[1] vessel loading activity



[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 08/14/2021

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	48,000	70.10
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	Sep 1/10	49,000	79.12*
U.S. Gulf	Djibouti	Wheat	Jul 6/16	5,880	85.70*
PNW	Japan	Wheat	Sep 1	52,170	56.55*
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	Aug 1/10	55,000	54.95
PNW	Taiwan	Wheat	May 29/Jun 12	45,665	48.00

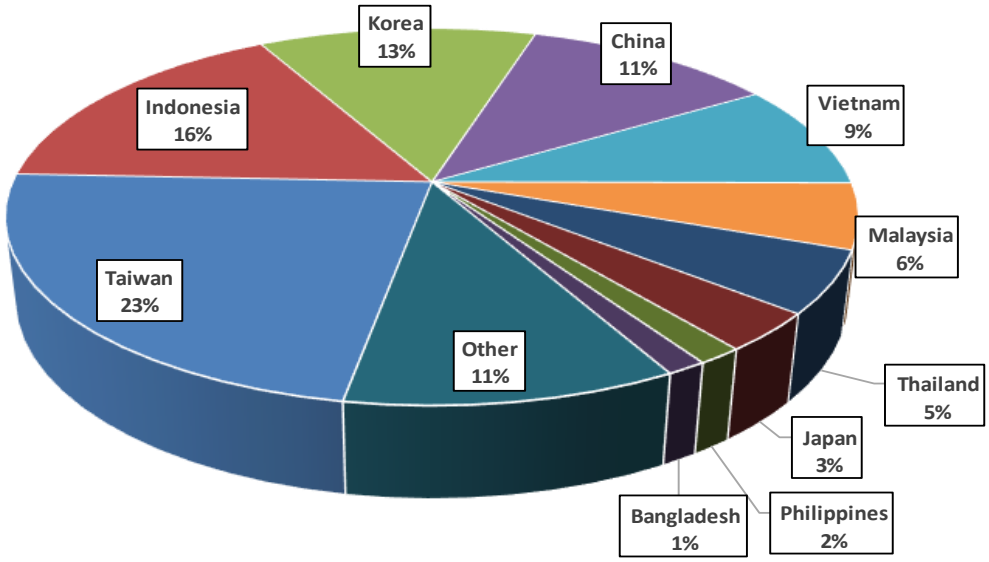
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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.

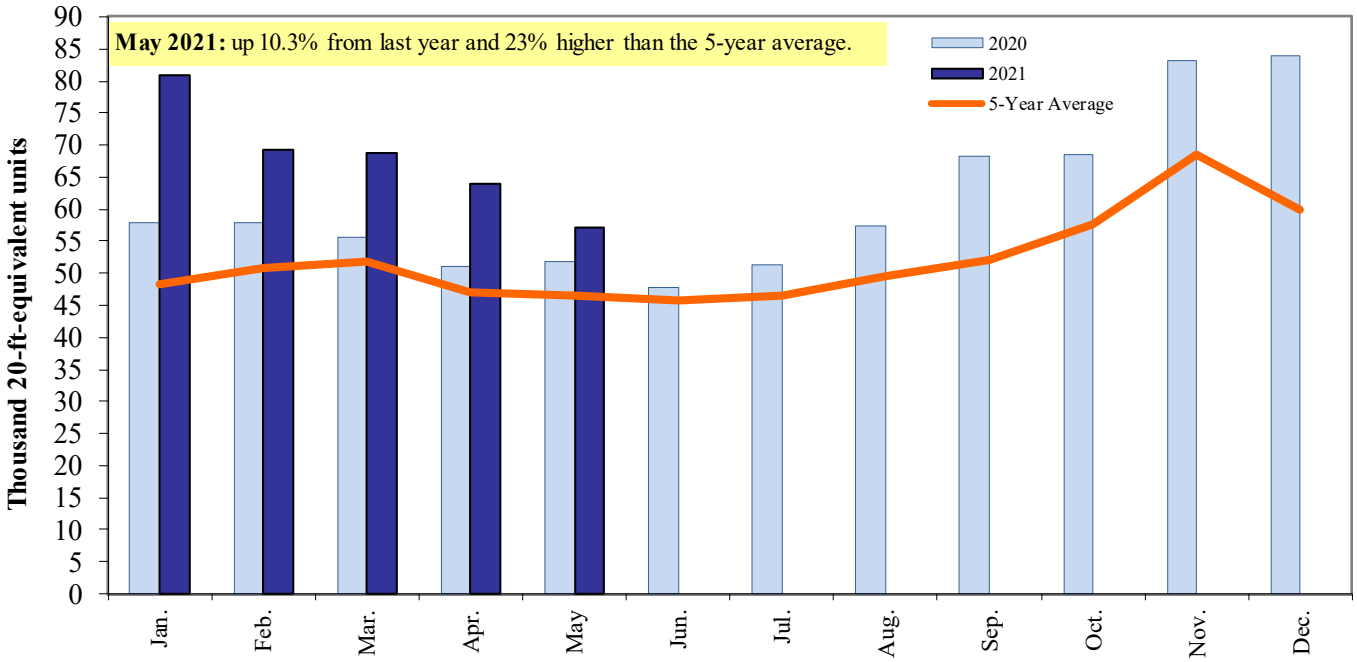
Figure 18
Top 10 destination markets for U.S. containerized grain exports, Jan-May 2021



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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