



# **Grain Transportation Report**

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

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March 25, 2021

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The next release is April 1, 2021

Earlier this week, Canadian Pacific Railway (CP) and Kansas City Southern Railway (KCS) notified the Surface Transportation Board (STB) of their intent to merge. The two railroads anticipate filing their formal application to STB on or shortly after June 28, 2021. STB has jurisdiction over railroad mergers. In a statement, STB Chair Martin Oberman said the agency will review the proposed transaction carefully, commit to move forward expeditiously, and create opportunities for public participation and stakeholder comments. If approved, the proposal would be the first merger between two Class I railroads in over two decades.

#### **Export Sales of Corn and White Wheat Remain Strong**

Canadian Pacific and Kansas City Southern Propose Merger

According to USDA's Foreign Agricultural Service's most recent data, net total U.S. corn export sales were close to 1 million metric tons (mmt) for the week ending March 11, the largest weekly volume since February 11. China purchased a total of 3.076 mmt of U.S. corn on March 16, 17, and 18. Respectively, these sales represented the second-, third-, and fourth-largest single-day U.S. corn sales volumes for marketing year (MY) 2020/21. At 4.4 mmt, total U.S. white wheat sales for MY 2020/21 are at a 10-year high for the week ending March 11. Chinese demand for white wheat (for feed and milling use) is the most robust it has been since 2010. Although export sales commitments are subject to cancelation, the strong volume of reported sales is unusual for this time of the year. The strong volume could point to higher transportation demand in the coming months, if the unshipped export balances materialize as deliveries.

#### USDA Cooperative Research Examines Preferences for Rail vs. Barge on Mississippi River System

USDA's Agricultural Marketing Service recently published a synopsis of a study conducted in cooperation with the University of Oregon. The researchers studied the relationship between preferences for barge and rail transportation among Midwest corn shippers. The analysis measured how a given shipper's preference for each mode changed as the shipper's distance to the waterway changed. Of movements originating near the Mississippi River network, nearly all barge shipments and about a quarter of rail ended in the Louisiana Gulf. Preference for barge was found to be strongest for shippers closest to a waterway and fell to approximately zero for shippers beyond 175 miles from the waterway.

#### **Snapshots by Sector**

### **Export Sales**

For the week ending March 11, **unshipped balances** of wheat, corn, and soybeans totaled 43.1 mmt. This was 4 percent lower than last week, but still represented a significant increase in outstanding sales from the same time last year. Net **corn export sales** were 0.986 mmt, up significantly from the past week. Net **soybean export sales** were 0.202 mmt, down 42 percent from the previous week. Net **wheat export sales** were 0.390 mmt, up 18 percent from the previous week.

#### Rail

U.S. Class I railroads originated 23,939 grain carloads during the week ending March 13. This was a 9-percent decrease from the previous week, 20 percent more than last year, and 17 percent more than the 3-year average.

Average April shuttle secondary railcar bids/offers (per car) were \$217 above tariff for the week ending March 18. This was \$233 more than last week and \$142 more than this week last year. There were no non-shuttle bids/offers this week.

#### Barge

For the week ending March 20, barge grain movements totaled 722,820 tons. This was 11 percent lower than the previous week and 29 percent higher than the same period last year.

For the week ending March 20, 463 grain barges **moved down river**—49 barges fewer than the previous week. There were 767 grain barges **unloaded in New Orleans**, 10 percent fewer than the previous week.

#### Ocean

For the week ending March 18, 37 occangoing grain vessels were loaded in the Gulf—54 percent more than the same period last year. Within the next 10 days (starting March 19, 2021), 56 vessels were expected to be loaded—47 percent more than the same period last year.

As of March 18, the rate for shipping a metric ton of grain from the U.S. Gulf to Japan was \$60.25. This was 4 percent more than the previous week. The rate from the Pacific Northwest to Japan was \$35.00 per metric ton, 8 percent more than the previous week.

#### Fuel

For the week ending March 22, the U.S. average **diesel fuel price** increased 0.3 cents from the previous week to \$3.194 per gallon, 53.5 cents above the same week last year.

### Feature Article/Calendar

#### **Grain Transportation Update**

Despite severe weather challenges in February, major market indicators show grain transportation demand has been strong in 2021 and is likely to remain so in the near term. In the last 10 weeks, U.S. Class I railroads originated 27 percent more grain carloads than in the same period last year. Year to date (YTD), as of the week ending March 20, 8.5 million tons of grain had moved down the Mississippi River to the U.S. Gulf—53 percent more than same period last year and the highest level since 2003. Grain-loading activity in the U.S. Gulf has also been vigorous. Supported by healthy transportation demand, bulk grain ocean freight rates and diesel fuel prices have trended up. According to the March <u>World Agricultural Supply and Demand Estimates (WASDE)</u>, total exports of the three major grains (corn, soybean and wheat) are expected to reach 5.8 million bushels in marketing year (MY) 2020/21, up 32 percent from MY 2019/20 (see table, p. 3).

#### Grain Volumes Continue To Strengthen Rail Carload Traffic in 2021

Grain has remained a strong commodity for rail in 2021. While most commodities have shown year-over-year declines, grain is up. Over the last 10 weeks, U.S. Class I railroads originated 27 percent more grain carloads than in the same period last year. The higher volumes were generally associated with higher average bids in the secondary auction market. The elevated bids were mainly due to increased demand for guaranteed rail service (a premium amenity paid above the tariff rail rate). Bids for delivery of railcars in January remained well above average, matching peak 2021 grain carloads. Although bids for delivery of railcars in February traded at high levels in December, bids fell considerably as the delivery month approached.

Over the past 3 months, service levels (as reflected in the Surface Transportation Board's <u>rail service metrics</u>) were comparable to 2019 levels—better than 2018 but worse than 2020. From January to February, average train speeds for grain trains fell, and origin dwell times increased. In mid-to-late February, the railroads dealt with outages and shortened train lengths as a result of severe winter weather. Service has recovered from its lows in late February, but not yet regained its relative highs of late 2020 and early 2021.

### **High Tonnages for Barged Grain Movements Despite the Severe Weather**

The total tonnages of downbound grain movements to the Gulf ports reached record highs in January. Still, the first quarter of 2021 has been a bumpy ride. Soon after downbound barge movements peaked at 1 million tons in the third and fourth weeks of January (fig. 1), the latter half of February brought severe-weather-driven disruptions. By the end of February, tonnages had fallen by more than 50 percent from the January peak. Although most grain barge movements resumed business in March, weekly tonnages to the Gulf have not yet reprised their January peak, despite continuously strong corn sales.

In the first half of the quarter, weekly Illinois River spot barge rates trended higher than in previous years (fig. 1). Likewise, spot rates rose because of high grain sales and rising operations costs due to unstable water conditions. So far, the average first-quarter spot rate is \$19.1 per ton, 38 percent higher than first quarter 2020 and 9 percent higher than the 4-year average (2016-19). However, in the second half of the quarter, spot barge rates trended down, reflecting the industry's struggle to recover from February's logistical challenges. Despite the continuously high demand for exports, average spot rates dropped to \$17.5 per ton in March—\$1.3 per ton lower than the 4-year average.

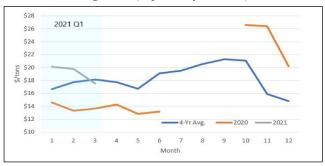
For the week ending March 20, total YTD barged grain tonnages were 8.5 million tons, 53 percent higher than the same week last year and the highest since 2003 (*GTR* table

Figure 1: Downbound grain movements through locks

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Source: U.S. Army Corps of Engineers.

#### Illinois river barge rates (adjusted by inflation)



Note: 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.

10). The increased volumes have been mostly due to high grain sales in the export market, with purchases mostly from China. Of total first-quarter barged grain tonnages, corn has made up 66 percent (16 percent higher than the previous-5-year average), reflecting strong demand for corn exports. Looking ahead, recent high grain sales signal a strong need to move grain to the international market. With weather conditions stabilized, the industry anticipates high corn export sales and the new navigation season for the Upper Mississippi River may help revive the tonnages.

#### Dry-Bulk Freight Rates Show Steady Rise Since Beginning of Year

Ocean freight rates for shipping bulk commodities, including grain have risen continuously since January. As of March 18, 2021, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$60.25. This rate was 39 percent more than this year's first available rate (January 7), 46 percent more than the same period a year ago, and 45 percent more than the 4-year average. The rate from the Pacific Northwest to Japan was \$35.00 per mt—43 percent more than the start of the year, 65 percent more than the same period last year, and 55 percent more than the 4-year average. A number of factors have triggered the rising rates and spurred demand for bulk commodities. Foremost among these factors are global optimism after the success of various vaccines and loosening of monetary policies in major economies, such as China. The grain and soybeans trade to China has also been strong. According to Drewry Maritime Research, Inc., the grain trade between the United States and China surged to 28 million tons in the first 2 months of 2021, up from 16.6 million tons from the same period in 2020. From the week ending January 7 to the week ending March 18, an average of 41 oceangoing grain vessels were loaded in the U.S. Gulf, compared to 30 vessels during the same period last year.

#### **Diesel Fuel Prices Continue Upward Climb**

Since late 2020, greater demand for petroleum products, as well as weather-related supply chain disruptions, have put upward pressure on U.S. average diesel fuel prices. Since November 2020, diesel fuel prices have increased more than 82 cents per gallon. Prices topped \$3 per gallon in late February for the first time in more than a year. The Department of Energy's Energy Information Administration (EIA) expects crude oil prices to increase in the near term, as overseas producers continue limiting their supplies through April. However, as the oil market becomes more balanced in the coming months, EIA expects downward pressure on crude oil prices will emerge.

#### Outlook for 2020/21

According to USDA's March <u>WASDE</u>, total U.S. exports of the three major grains are expected to reach 5.8 million bushels in MY 2020/21, up 32 percent from MY 2019/20 (see table). Production of corn is expected to increase 4 percent from MY 2019/20, to 14.2 million bushels. Soybean production is projected to increase 16 percent from MY 2019/20, to 4.1 million bushels. Wheat production is expected to decrease 5 percent from 2019/20, to 1.8 million bushels.

As the Chinese pork industry recovers from outbreaks of African swine fever, China's demand for feedstuff continues to support U.S exports of corn, wheat and soybeans. Domestic prices of corn in China are the highest since 2015, causing China to import more corn and corn substitutes to meet its rising demand for feed. Currently, total U.S. export sales commitments of corn are more than double those of the same time last year, with China accounting for 32 percent of that demand. China also continues to drive the export demand for U.S soybeans. Total

	Corn	Soybeans	Wheat	Total	Y/Y
	Unite	ed States 2020/21	(Projected)		
Production	14,182	4,135	1,826	20,143	5.4%
Exports	2,600	2,250	985	5,835	31.9%
Domestic use	12,025	2,325	1,153	15,503	-0.5%
Ending stocks	1,502	120	836		
Total use	14,625	4,575	2,138		
Stocks/use	10.3%	2.6%	39.1%		
	Unite	d States 2019/20	(Estimated)		
Production	13,620	3,552	1,932	19,104	-7.5%
Exports	1,778	1,682	965	4,425	-6.9%
Domestic use	12,185	2,270	1,123	15,578	0.2%
Ending stocks	1,919	525	1,028		
Total use	13,963	3,952	2,089		
Stocks/use	13.7%	13.3%	49.2%		
		United States 20	018/19		
Production	14,340	4,428	1,885	20,653	
Exports	2,066	1,752	937	4,755	
Domestic use	12,222	2,219	1,102	15,543	
Ending stocks	2,221	909	1,080		
Total use	14,288	3,971	2,039		
Stocks/use	15.5%	22.9%	53.0%		

Source: USDA, World Agricultural Supply and Demand Estimates, March 2021

soybean export commitments are 74 percent above last year, with China accounting for 59 percent of the total.

YTD total wheat commitments for MY 2020/21 are up 2 percent from MY 2019/20 (*GTR* table 15). Demand for U.S. wheat is expected to increase because of tight wheat supplies in the EU. The export quota and export tax set by Russia, the largest wheat exporter, are also expected to contribute to higher demand. Also, high domestic corn prices in China over the past year have prompted large sales of old wheat stock to be used as feed, thereby raising the demand for wheat imports. Demand for Chinese white wheat for feed and milling use is now the strongest it has been the since 2010. YTD for MY 2020/21, U.S. wheat total export commitments to China are more than 15 times those of the same time last year.

GTRContactUs@usda.gov

### **Grain Transportation Indicators**

Table 1 **Grain transport cost indicators**<sup>1</sup>

	Truck	Ra	nil	Barge	Ocean	
For the week ending		Unit train	Shuttle		Gulf	Pacific
03/24/21	214	303	231	210	269	248
03/17/21	214	299	231	212	258	230

<sup>&</sup>lt;sup>1</sup>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

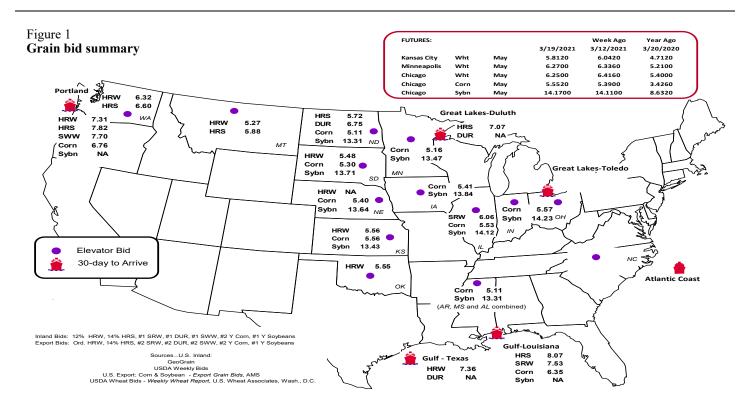
Market Update: U.S. origins to export position price spreads (\$/bushel)

Commodity	Origin-destination	3/19/2021	3/12/2021
Corn	IL-Gulf	-0.82	-0.82
Corn	NE-Gulf	-0.95	-0.95
Soybean	IA-Gulf	n/a	-1.10
HRW	KS–Gulf	-1.80	-1.85
HRS	ND-Portland	-2.10	-2.19

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.



## Rail Transportation

Table 3

Rail deliveries to port (carloads)<sup>1</sup>

rean activeties to port (carioa	45)						
	Mississippi		Pacific	Atlantic &			Cross-border
For the week ending	Gulf	Texas Gulf	Northwest	East Gulf	Total	Week ending	Mexico <sup>3</sup>
3/17/2021 <sup>p</sup>	1,492	1,632	5,990	300	9,414	3/13/2021	2,723
3/10/2021 <sup>r</sup>	1,772	1,936	7,939	98	11,745	3/6/2021	2,948
2021 YTD <sup>r</sup>	20,232	19,948	74,948	7,475	122,603	2021 YTD	26,077
2020 YTD <sup>r</sup>	4,098	6,884	45,462	2,213	58,657	2020 YTD	25,449
2021 YTD as % of 2020 YTD	494	290	165	338	209	% change YTD	102
Last 4 weeks as % of 2020 <sup>2</sup>	1,108	233	160	119	194	Last 4wks. % 2020	107
Last 4 weeks as % of 4-year avg. <sup>2</sup>	281	124	118	89	130	Last 4wks. % 4 yr.	129
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

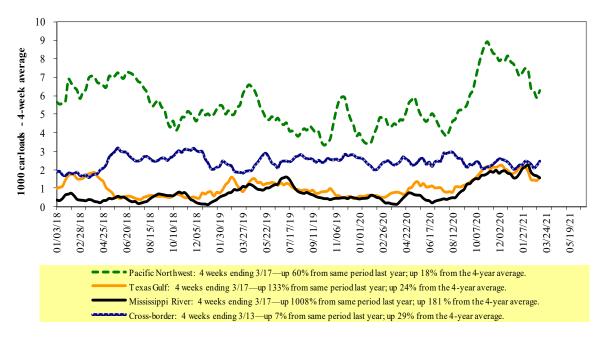
<sup>&</sup>lt;sup>1</sup>Data is incomplete as it is voluntarily provided.

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

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.

<sup>&</sup>lt;sup>2</sup> Compared with same 4-weeks in 2020 and prior 4-year average.

<sup>&</sup>lt;sup>3</sup> 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.

Table 4

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

For the week ending:	Ea	ıst	,	West		U.S. total	Cai	nada
3/13/2021	CSXT	NS	BNSF	KCS	UP	U.S. total	CN	CP
This week	2,008	2,398	11,853	932	6,748	23,939	4,817	6,122
This week last year	1,679	2,327	10,476	965	4,534	19,981	3,926	3,718
2021 YTD	20,903	26,535	129,602	9,922	64,632	251,594	48,135	49,241
2020 YTD	18,948	24,579	113,864	11,895	48,498	217,784	36,231	40,114
2021 YTD as % of 2020 YTD	110	108	114	83	133	116	133	123
Last 4 weeks as % of 2020*	117	101	114	87	132	115	131	136
Last 4 weeks as % of 3-yr. avg.**	114	94	114	90	122	112	124	131
Total 2020	91,659	130,935	613,630	57,782	296,701	1,190,707	239,106	261,778

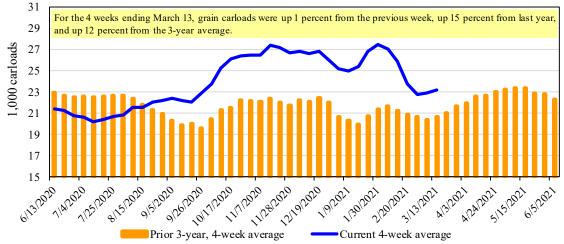
<sup>\*</sup>The past 4 weeks of this year as a percent of the same 4 weeks last year.

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<sup>1</sup> (\$/car)<sup>2</sup>

Fo	r the week ending:				<u>Deliver</u>	y period			
	3/18/2021	Apr-21	Apr-20	May-21	May-20	Jun-21	Jun-20	Jul-21	Jul-20
BNSF <sup>3</sup>	COT grain units COT grain single-car	no bids 26	0 4	0 15	0	no bids 0	no bid 0	0	no bids no bids
UP <sup>4</sup>	GCAS/Region 1 GCAS/Region 2	no offer no offer	10 10	no offer no offer	no offer no bid	no offer no offer	no offer no bid	n/a n/a	n/a n/a

6

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.

<sup>\*\*</sup>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.

<sup>&</sup>lt;sup>1</sup>Auction offerings are for single-car and unit train shipments only.

<sup>&</sup>lt;sup>2</sup>Average premium/discount to tariff, last auction. n/a = not available.

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

<sup>&</sup>lt;sup>4</sup>UP - GCAS = Union Pacific Railroad Grain Car Allocation System.

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 April 2021, secondary market 800 Average premium/discount to tariff 700 600 500 400 300 200 100 0 -100 -200 8/27/2020 9/10/2020 9/24/2020 10/8/2020 0/22/2020 11/5/2020 11/19/2020 12/3/2020 2/17/2020 2/31/2020 4/8/2021 1/14/2021 1/28/2021 2/11/2021 2/25/2021 3/11/2021 3/25/2021 Non-shuttle

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.

Average shuttle bids/offers rose \$233 this week and are at the peak.

• Shuttle prior 3-yr. avg. (same week)

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

Shuttle

<u>UP</u>

n/a

\$200

**BNSF** 

n/a

Shuttle \$234

3/18/2021

Non-shuttle

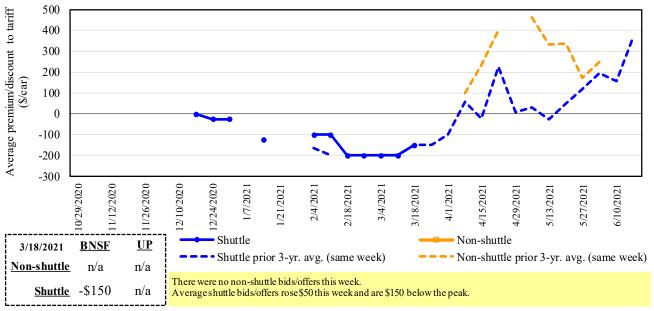
Figure 5 Bids/offers for railcars to be delivered in May 2021, secondary market 800 Average premium/discount to tariff 700 600 500 400 300 200 100 0 -100 -200 -300 0/15/2020 0/29/2020 11/12/2020 11/26/2020 12/10/2020 1/21/2021 2/24/2020 2/4/2021 1/7/202 3/4/202 3/18/202] 5/13/202] 2/18/202 4/1/202 4/15/202 4/29/202 Non-shuttle 3/18/2021 **BNSF** <u>UP</u> Non-shuttle prior 3-yr. avg. (same week) - Shuttle prior 3-yr. avg. (same week) Non-shuttle n/a n/a There were no non-shuttle bids/offers this week. -\$75 -\$75 **Shuttle** Average shuttle bids/offers rose \$52 this week and are \$50 below the peak.

Source: USDA, Agricultural Marketing Service.

--- Non-shuttle prior 3-yr. avg. (same week)

 $Note: Non-shuttle\ bids\ include\ unit-train\ and\ single-car\ bids.\ n/a=not\ available;\ avg.=average;\ yr.=year;\ BNSF=BNSF\ Railway;\ UP=Union\ Pacific\ Railroad.$ 

Figure 6
Bids/offers for railcars to be delivered in June 2021, secondary market



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)<sup>1</sup>

	For the week ending:			De	livery period		
	3/18/2021	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21
	BNSF-GF	n/a	n/a	n/a	n/a	n/a	n/a
le	Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
-shuttle	Change from same week 2020	n/a	n/a	n/a	n/a	n/a	n/a
Non-s	UP-Pool	n/a	n/a	n/a	n/a	n/a	n/a
	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
	BNSF-GF	234	(75)	(150)	(150)	(150)	(150)
	Change from last week	290	67	50	0	0	0
Shuttle	Change from same week 2020	n/a	n/a	n/a	n/a	n/a	n/a
Shu	UP-Pool	200	(75)	n/a	(100)	(200)	n/a
	Change from last week	175	38	n/a	0	13	n/a
	Change from same week 2020	125	425	n/a	n/a	n/a	n/a

<sup>&</sup>lt;sup>1</sup>Average premium/discount to tariff, \$/car-last week.

 $Note: Bids\ listed\ are\ market\ indicators\ only\ and\ are\ not\ guaranteed\ prices.\ n/a=not\ available; GF=guaranteed\ freight; Pool=guaranteed\ pool; and are not\ guaranteed\ prices.\ n/a=not\ available; GF=guaranteed\ freight; Pool=guaranteed\ pool; and are not\ guaranteed\ prices.\ n/a=not\ available; GF=guaranteed\ freight; Pool=guaranteed\ pool; and guaranteed\ prices.\ n/a=not\ available; GF=guaranteed\ freight; Pool=guaranteed\ pool; and guaranteed\ prices.\ n/a=not\ available; GF=guaranteed\ prices.$ 

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<sup>1</sup>

				Fuel			Percent
	0.1 3	D 4 4 3	Tariff	surcharge_	Tariff plus surch		change
March 2021	Origin region <sup>3</sup>	Destination region <sup>3</sup>	rate/car	per car	metric ton	bus hel <sup>2</sup>	Y/Y <sup>4</sup>
<u>Unit train</u>	W. 1. V.	G: I : MO	<b>#2.002</b>	0.61	0.40.16	<b>#1.00</b>	
Wheat	Wichita, KS	St. Louis, MO	\$3,983	\$61	\$40.16	\$1.09	-1
	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	\$107	\$46.00	\$1.25	-1
	Sioux Falls, SD	Galveston-Houston, TX	\$6,851	\$0	\$68.03	\$1.85	-2
	Colby, KS	Galveston-Houston, TX	\$4,801	\$117	\$48.84	\$1.33	-1
	Amarillo, TX	Los Angeles, CA	\$5,121	\$163	\$52.47	\$1.43	-2
Corn	Champaign-Urbana, IL	New Orleans, LA	\$3,900	\$121	\$39.93	\$1.01	-2
	Toledo, OH	Raleigh, NC	\$7,833	\$0	\$77.79	\$1.98	15
	Des Moines, IA	Davenport, IA	\$2,455	\$26	\$24.63	\$0.63	1
	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	\$75	\$39.47	\$1.00	1
	Des Moines, IA	Los Angeles, CA	\$5,780	\$219	\$59.57	\$1.51	0
Soybeans	Minneapolis, MN	New Orleans, LA	\$5,246	\$97	\$53.06	\$1.44	40
	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	\$121	\$47.33	\$1.29	-1
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	\$192	\$61.61	\$1.68	-2
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	\$121	\$39.13	\$0.99	-2
	Lincoln, NE	Galveston-Houston, TX	\$3,880	\$0	\$38.53	\$0.98	0
	Des Moines, IA	Amarillo, TX	\$4,320	\$94	\$43.84	\$1.11	1
	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	\$139	\$49.79	\$1.36	-2
	Toledo, OH	Huntsville, AL	\$4,945	\$0	\$49.11	\$1.34	3
	Grand Island, NE	Portland, OR	\$5,260	\$196	\$54.19	\$1.47	-2

<sup>&</sup>lt;sup>1</sup>A unit train refers to shipments of at least 25 cars. Shuttle train rates are generally available for qualified shipments of

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

<sup>75-120</sup> cars that meet railroad efficiency requirements.

<sup>&</sup>lt;sup>2</sup>Approximate load per car = 111 short tons (100.7 metric tons): com 56 pounds per bushel (lbs/bu), wheat and soybeans 60 lbs/bu.

<sup>&</sup>lt;sup>3</sup>Regional economic areas are defined by the Bureau of Economic Analysis (BEA).

<sup>&</sup>lt;sup>4</sup>Percentage change year over year (Y/Y) calculated using tariff rate plus fuel surcharge.

Table 8

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

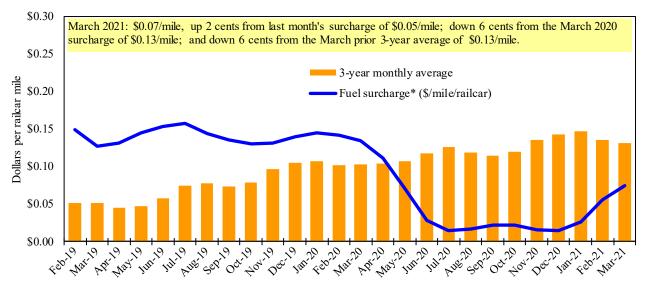
Date	: March 20	)21		Fuel	Tari	ff rate plus	Percent
	Origin		Tariff rate	surcharge	fuel surc	harge per:	change <sup>4</sup>
Commodity	state	Destination region	per car¹	per car <sup>2</sup>	metric ton <sup>3</sup>	bus he l <sup>3</sup>	Y/Y
Wheat	MT	Chihuahua, CI	\$7,384	\$0	\$75.45	\$2.05	-2
	OK	Cuautitlan, EM	\$6,713	\$84	\$69.44	\$1.89	-2
	KS	Guadalajara, JA	\$7,471	\$611	\$82.58	\$2.25	0
	TX	Salinas Victoria, NL	\$4,347	\$51	\$44.93	\$1.22	0
Corn	IA	Guadalajara, JA	\$8,902	\$496	\$96.02	\$2.44	0
	SD	Celaya, GJ	\$8,140	\$0	\$83.17	\$2.11	0
	NE	Queretaro, QA	\$8,300	\$172	\$86.56	\$2.20	-1
	SD	Salinas Victoria, NL	\$6,905	\$0	\$70.55	\$1.79	0
	MO	Tlalnepantla, EM	\$7,665	\$167	\$80.03	\$2.03	-1
	SD	Torreon, CU	\$7,690	\$0	\$78.57	\$1.99	0
Soybeans	MO	Bojay (Tula), HG	\$8,547	\$467	\$92.10	\$2.50	0
	NE	Guadalajara, JA	\$9,157	\$481	\$98.48	\$2.68	0
	IA	El Castillo, JA	\$9,410	\$0	\$96.15	\$2.61	-1
	KS	Torreon, CU	\$8,014	\$321	\$85.16	\$2.32	0
Sorghum	NE	Celaya, GJ	\$7,772	\$430	\$83.80	\$2.13	0
	KS	Queretaro, QA	\$8,108	\$104	\$83.91	\$2.13	-1
	NE	Salinas Victoria, NL	\$6,713	\$84	\$69.44	\$1.76	-1
	NE	Torreon, CU	\$7,092	\$286	\$75.39	\$1.91	-1

<sup>&</sup>lt;sup>1</sup>Rates are based upon published tariff rates for high-capacity shuttle trains. Shuttle trains are available for qualified

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

Figure 7

Railroad fuel surcharges, North American weighted average<sup>1</sup>



 $<sup>^{\</sup>rm I}$  Weighted by each Class I railroad's proportion of grain traffic for the prior year.

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

shipments of 75-110 cars that meet railroad efficiency requirements.

<sup>&</sup>lt;sup>2</sup>Fuel surcharge adjusted to reflect the change in Ferrocarril Mexicano, S.A. de C.V railroad fuel surcharge policy as of 10/01/2009.

<sup>&</sup>lt;sup>3</sup>Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

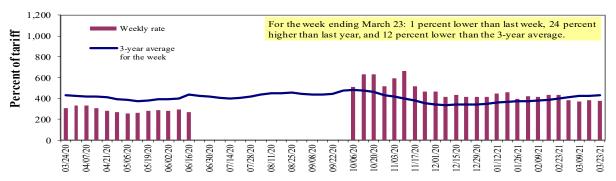
<sup>&</sup>lt;sup>4</sup>Percentage change calculated using tariff rate plus fuel surchage; Y/Y = year over year.

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

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

## **Barge Transportation**

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



 $<sup>^{1}</sup>$ 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

	V	Twin Cities	Mid- Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo- Memphis
Rate <sup>1</sup>	3/23/2021	-	-	378	279	311	311	241
	3/16/2021	-	-	381	273	293	293	240
\$/ton	3/23/2021	-	-	17.54	11.13	14.59	12.56	7.57
	3/16/2021	-	-	17.68	10.89	13.74	11.84	7.54
Curren	it week % chang	e from the sa	me week:					
	Last year	-	-	24	35	56	56	29
	3-year avg. <sup>2</sup>	-	-	-12	-16	-20	-20	-22
Rate <sup>1</sup>	April	486	403	378	275	296	296	243
	June	455	373	361	264	279	279	236

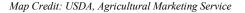
<sup>&</sup>lt;sup>1</sup>Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); <sup>2</sup>4-week moving average; ton = 2,000 pounds; "-" not available due to closure. Source: USDA, Agricultural Marketing Service.

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.

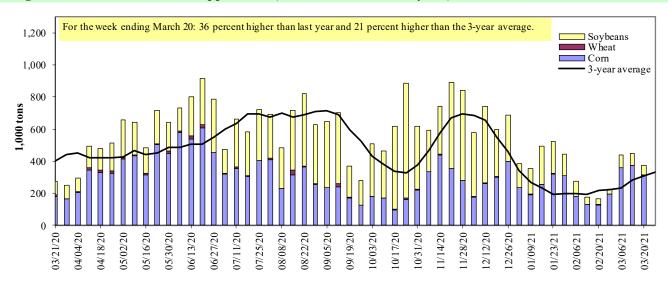




 $<sup>^3</sup>$ No rates data from 06/23/20 to 9/29/20 due to the lock closure for rehabilitation and replacement of lock machinery.

Figure 10

Barge movements on the Mississippi River<sup>1</sup> (Locks 27 - Granite City, IL)



<sup>&</sup>lt;sup>1</sup> 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)** 

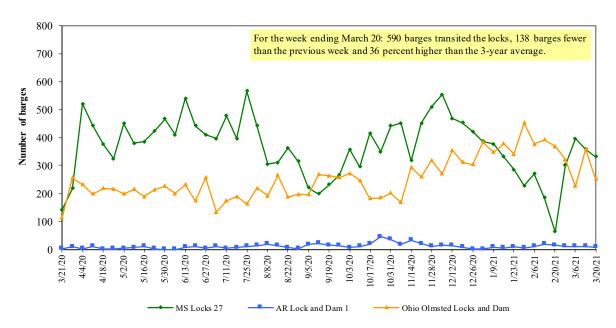
For the week ending 03/20/2021	Corn	Wheat	Soybe ans	Other	Total
Mississippi River					_
Rock Island, IL (L15)	0	0	0	0	0
Winfield, MO (L25)	0	0	0	0	0
Alton, IL (L26)	327	2	57	0	385
Granite City, IL (L27)	311	2	59	0	371
Illinois River (La Grange)	164	2	25	0	190
Ohio River (Olmsted)	245	2	87	0	334
Arkansas River (L1)	0	8	10	0	18
Weekly total - 2021	556	12	156	0	723
Weekly total - 2020	368	53	139	0	560
2021 YTD <sup>1</sup>	5,512	171	2,716	87	8,486
2020 YTD <sup>1</sup>	2,693	352	2,486	12	5,542
2021 as % of 2020 YTD	205	49	109	750	153
Last 4 weeks as % of 2020 <sup>2</sup>	190	43	90	30	145
Total 2020	18,942	1,765	19,205	237	40,149

<sup>&</sup>lt;sup>1</sup> 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.

Note: L (as in "L15") refers to a lock, locks, or locks and dam facility. Olmsted = Olmsted Locks and Dam. La Grange = La Grange Lock and Dam. Source: U.S. Army Corps of Engineers.

<sup>&</sup>lt;sup>2</sup> As a percent of same period in 2020.

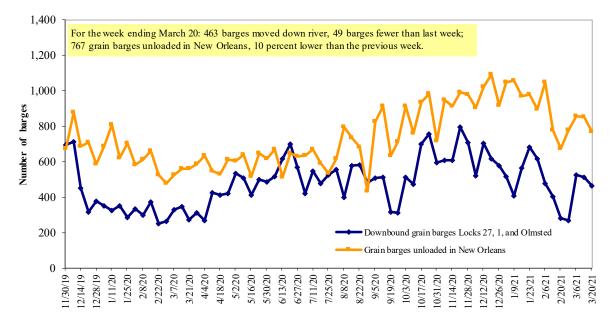
Figure 11
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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.

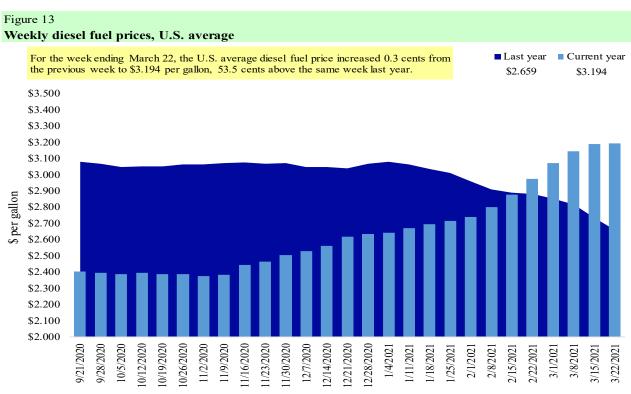
Table 11

Retail on-highway diesel prices, week ending 3/22/2021 (U.S. \$/gallon)

			Change	e from
Region	Location	Price	Week ago	Year ago
I	East Coast	3.152	0.004	0.428
	New England	3.099	0.017	0.250
	Central Atlantic	3.299	0.007	0.388
	Lower Atlantic	3.064	0.000	0.491
II	Midwest	3.149	-0.020	0.650
III	Gulf Coast	2.991	0.003	0.553
IV	Rocky Mountain	3.317	0.041	0.637
V	West Coast	3.678	0.037	0.430
	West Coast less California	3.315	0.045	0.436
	California	3.980	0.029	0.428
Total	United States	3.194	0.003	0.535

<sup>&</sup>lt;sup>1</sup>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.



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)

	, c carpore	(2,000							
	Wheat						Corn	<b>Soybe ans</b>	Total
For the week ending	HRW	SRW	HRS	SWW	DUR	All wheat			
Export balances <sup>1</sup>									
3/11/2021	1,428	388	1,765	2,017	153	5,752	30,543	6,780	43,074
This week year ago	1,747	306	1,614	1,070	146	4,884	12,816	4,316	22,015
Cumulative exports-marketing year <sup>2</sup>									
2020/21 YTD	6,897	1,378	5,537	4,429	518	18,759	29,962	53,854	102,575
2019/20 YTD	7,133	2,031	5,490	3,749	682	19,086	16,202	30,532	65,820
YTD 2020/21 as % of 2019/20	97	68	101	118	76	98	185	176	156
Last 4 wks. as % of same period 2019/20*	79	135	119	205	103	124	254	172	209
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

<sup>&</sup>lt;sup>1</sup> Current unshipped (outstanding) export sales to date.

Note: marketing year: wheat = 6/01-5/31, corn and soybeans = 9/01-8/31. YTD = year-to-date; wks. = weeks; HRW= hard red winter; SRW = soft red winter;

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

Source: USDA, Foreign Agricultural Service.

Table 13 **Top 5 importers**<sup>1</sup> **of U.S. corn** 

For the week ending 3/11/2021	Total commi	tments <sup>2</sup>	% change	Exports <sup>3</sup>
	2020/21	2019/20	current MY	3-yr. avg.
	current MY	last MY	from last MY	2017-19
		- 1,000 mt -		
Mexico	12,428	11,116	12	14,869
Japan	8,563	6,277	36	11,221
Columbia	2,856	2,824	1	4,830
Korea	1,929	1,141	69	4,011
China	19,364	61	31,591	909
Top 5 importers	45,140	21,420	111	35,840
Total U.S. corn export sales	60,505	29,018	109	49,983
% of projected exports	91%	64%		
Change from prior week <sup>2</sup>	986	905		
Top 5 importers' share of U.S. corn				
export sales	75%	74%		72%
USDA forecast March 2021	66,158	45,242	46	
Corn use for ethanol USDA forecast,				
March 2021	125,730	123,368	2	

 $<sup>^{1}</sup>Based \ on \ USDA, Foreign \ Agricultural \ Service \ (FAS) \ marketing \ year \ ranking \ reports \ for \ 2019/20; \ marketing \ year \ (MY) = Sep \ 1 - Aug \ 31.$ 

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

Source: USDA, Foreign Agricultural Service.

<sup>&</sup>lt;sup>2</sup> Shipped export sales to date; 2020/21 marketing year now in effect for wheat, corn, and soybeans.

<sup>&</sup>lt;sup>2</sup>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.

<sup>&</sup>lt;sup>3</sup>FAS marketing year ranking reports (carry over plus accumulated export); yr. = year; avg. = average.

Table 14

Top 5 importers<sup>1</sup> of U.S. soybeans

For the week ending 3/11/2021	Total	commitments <sup>2</sup>	% change	Exports <sup>3</sup>
	2020/21	2019/20	current MY	3-yr. avg.
	current MY	last MY	from last MY	2017-19
		1,000 mt -		- 1,000 mt -
China	35,924	12,144	196	19,106
Mexico	4,498	3,574	26	4,591
Egypt	2,393	2,189	9	2,980
Indonesia	1,736	1,360	28	2,360
Japan	1,804	1,933	(7)	2,288
Top 5 importers	46,355	21,198	119	31,324
Total U.S. soybean export sales	60,634	34,847	74	49,352
% of projected exports	99%	76%		
change from prior week <sup>2</sup>	202	588		
Top 5 importers' share of U.S.				
soybean export sales	76%	61%		63%
USDA forecast, March 2021	61,308	45,831	134	

<sup>&</sup>lt;sup>1</sup>Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2019/20; marketing year (MY) = Sep 1 - Aug 31.

Source: USDA, Foreign Agricultural Service.

Table 15

Top 10 importers<sup>1</sup> of all U.S. wheat

For the week ending 3/11/2021		nmitments <sup>2</sup>	% change	Exports <sup>3</sup>
	2020/21 current MY	2019/20 last MY	current MY from last MY	3-yr. avg. 2017-19
		1,000 mt -		- 1,000 mt -
Mexico	3,367	3,394	(1)	3,213
Philippines	3,032	3,146	(4)	2,888
Japan	2,336	2,535	(8)	2,655
Nigeria	1,367	1,410	(3)	1,433
Korea	1,608	1,422	13	1,372
Indonesia	994	1,009	(1)	1,195
Taiwan	1,136	1,164	(2)	1,175
Thailand	810	853	(5)	727
Italy	570	782	(27)	622
Colombia	358	714	(50)	618
Top 10 importers	15,578	16,428	(5)	15,897
Total U.S. wheat export sales	24,510	23,970	2	23,821
% of projected exports	91%	91%		
change from prior week <sup>2</sup>	390	338		
Top 10 importers' share of U.S.				
wheat export sales	64%	69%		67%
USDA forecast, March 2021	26,839	26,294	2	

<sup>&</sup>lt;sup>1</sup> Based on USDA, Foreign Agricultural Service( FAS) marketing year ranking reports for 2019/20; Marketing year (MY) = Jun 1 - May 31.

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

 $Source: USDA, For eign\ A\ gricultural\ Service.$ 

<sup>&</sup>lt;sup>2</sup>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.

<sup>&</sup>lt;sup>3</sup>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.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> FAS marketing year final reports (carryover plus accumulated export); yr. = year; avg. = average.

Table 16
Grain inspections for export by U.S. port region (1,000 metric tons)

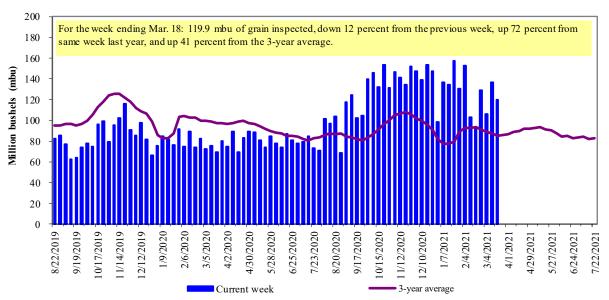
	For the week ending	Previous	Current week			2021 YTD as	Last 4-we	eeks as % of:	
Port regions	03/18/21	week*	as % of previous	2021 YTD*	2020 YTD*	% of 2020 YTD	Last year	Prior 3-yr. avg.	2020 total*
Pacific Northwest									
Wheat	455	500	91	3,418	3,552	96	127	159	15,966
Corn	470	591	80	3,781	1,024	369	304	193	9,969
Soybeans	0	85	0	3,613	2,133	169	152	70	14,028
Total	925	1,177	79	10,812	6,708	161	183	145	39,963
Mississippi Gulf	/=0	2,2	.,	10,012	0,7.00	101	100	-1.0	0,,,,,,
Wheat	30	58	52	411	879	47	40	38	3,422
Corn	1,203	1,418	85	10,864	5,811	187	221	210	28,781
Soybeans	346	336	103	8,485	6,764	125	106	89	38,013
Total	1,580	1,812	87	19,759	13,454	147	165	150	70,215
Texas Gulf	1,500	1,012	07	17,707	10,101	117	100	100	70,210
Wheat	100	140	71	728	879	83	96	76	4,248
Corn	0	0	n/a	107	138	78	117	88	723
Soybeans	0	0	n/a	619	6	n/a	n/a	n/a	2,098
Total	100	140	71	1,455	1,023	142	98	77	7,068
Interior				-,	-,		, ,		1,000
Wheat	61	50	120	554	502	110	158	169	2,263
Corn	255	226	113	1,874	1,615	116	143	154	8,683
Soybeans	150	140	107	1,621	1,645	98	100	104	7,274
Total	465	416	112	4,048	3,763	108	127	134	18,220
Great Lakes									
Wheat	0	0	n/a	19	1	n/a	n/a	82	891
Corn	0	0	n/a	0	0	n/a	n/a	n/a	111
Soybeans	0	0	n/a	0	0	n/a	n/a	n/a	1,111
Total	0	0	n/a	19	1	n/a	n/a	82	2,113
Atlantic									
Wheat	37	0	n/a	71	0	n/a	n/a	726	65
Corn	0	0	n/a	0	0	n/a	n/a	0	33
Soybeans	19	17	111	780	269	290	196	130	1,870
Total	56	17	324	851	269	317	293	171	1,968
U.S. total from ports	*								
Wheat	683	750	91	5,202	5,813	89	113	121	26,854
Corn	1,928	2,235	86	16,625	8,588	194	223	196	48,301
Soybeans	515	578	89	15,118	10,818	140	115	88	64,394
Total	3,125	3,562	88	36,944	25,219	146	162	143	139,548

<sup>\*</sup>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.

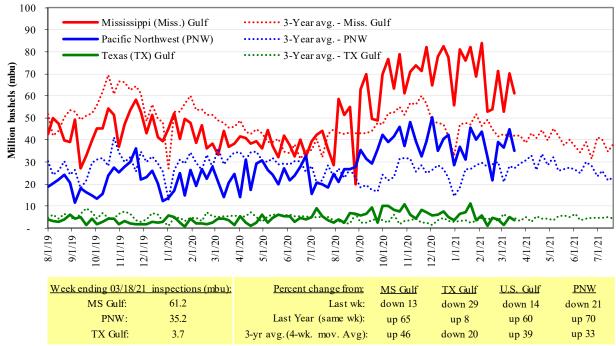
Figure 14
U.S. grain inspected for export (wheat, corn, and soybeans)



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<sup>1</sup> (wheat, corn, and soybeans)



Source: USDA, Federal Grain Inspection Service.

## **Ocean Transportation**

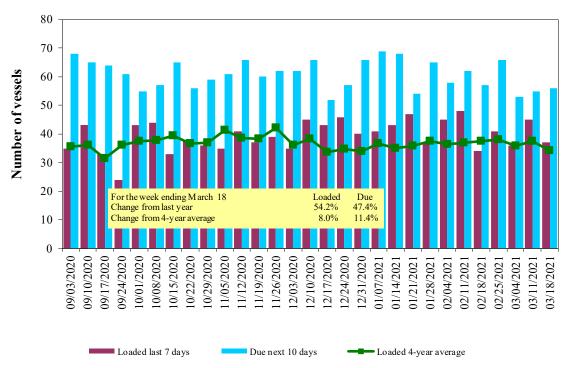
Table 17
Weekly port region grain ocean vessel activity (number of vessels)

				Pacific
		Gulf		Northwest
		Loaded	Due next	
Date	In port	7-days	10-days	In port
3/18/2021	35	37	56	15
3/11/2021	38	45	55	16
2020 range	(2260)	(2346)	(3468)	(724)
2020 average	37	33	49	15

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

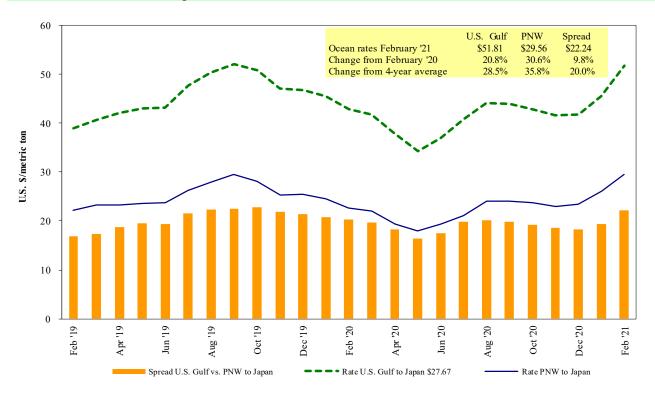
Source: USDA, Agricultural Marketing Service.

Figure 16
U.S. Gulf<sup>1</sup> vessel loading activity



<sup>1</sup>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 03/20/2021

Export	Import	Grain	Loading	Volume loads	Freight rate
region	region	types	date	(metric tons)	(US\$/metric ton)
U.S. Gulf	Japan	Grain	May 25/Jun 25	50,000	46.85 op 47.85
U.S. Gulf	Japan	Wheat	May 1/15	31,877	58.33
U.S. Gulf	Japan	Heavy grain	Apr 15/May 15	50,000	47.00
U.S. Gulf	Japan	Heavy grain	Apr 1/30	48,000	46.75
U.S. Gulf	South Korea	Heavy grain	Feb 20/28	51,000	51.50
U.S. Gulf	Pt Sudan	Sorghum	Feb 15/25	34,860	143.13*
U.S. Gulf	Vietnam	Corn	Feb 5/15	70,000	47.25
PNW	Japan	Grain	Mar 5/14	28,000	48.10
PNW	Taiwan	Corn	Feb 20/Mar 15	65,000	24.90
Brazil	China	Heavy grain	Mar 21/31	66,000	44.00
Brazil	China	Heavy grain	Mar 21/30	66,000	45.50
River Plate	S. Korea	Corn	May 1/31	68,000	52.60*
Ukraine	China	Corn	Feb 10/17	60,000	36.40 op 38.90

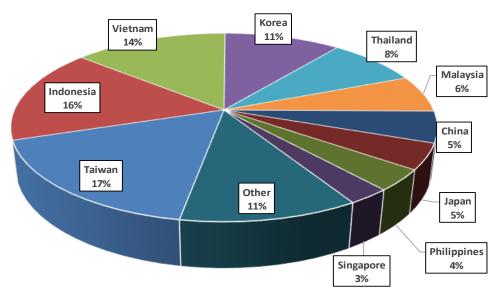
\*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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.

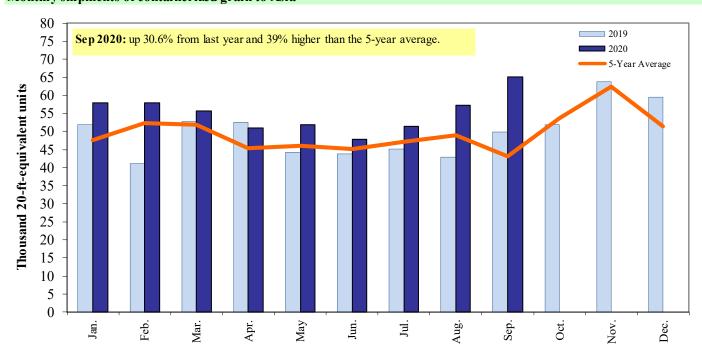
Figure 18
Top 10 destination markets for U.S. containerized grain exports, Jan-Sep 2020



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 containerized grain to Asia



Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 100190, 100200, 100300, 100400, 100590, 100700, 110100, 110220, 110290, 12010, 120100, 120190, 120810, 230210, 230310, 230330, and 230990.

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

### **Contacts and Links**

Coordinators Surajudeen (Deen) Olowolayemo Maria Williams Bernadette Winston Matt Chang	surajudeen.olowolayemo@usda.gov maria.williams@usda.gov bernadette.winston@usda.gov matt.chang@usda.gov	(202) 720 - 0119 (202) 690 - 4430 (202) 690 - 0487 (202) 720 - 0299
Grain Transportation Indicators Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
Rail Transportation Johnny Hill Jesse Gastelle Peter Caffarelli	johnny.hill@usda.gov jesse.gastelle@usda.gov petera.caffarelli@usda.gov	(202) 690 - 3295 (202) 690 - 1144 (202) 690 - 3244
Barge Transportation April Taylor Bernadette Winston Matt Chang	april.taylor@usda.gov bernadette.winston@usda.gov matt.chang@usda.gov	(202) 720 - 7880 (202) 690 - 0487 (202) 720 - 0299
Truck Transportation April Taylor Kranti Mulik Matt Chang	april.taylor@usda.gov kranti.mulik@usda.gov matt.chang@usda.gov	(202) 720 - 7880 (202) 756 - 2577 (202) 720 - 0299
Grain Exports Johnny Hill Kranti Mulik	johnny.hill@usda.gov kranti.mulik@usda.gov	(202) 690 - 3295 (202) 756 - 2577
Ocean Transportation Surajudeen (Deen) Olowolayemo (Freight rates and vessels) April Taylor (Container movements)	surajudeen.olowolayemo@usda.gov april.taylor@usda.gov	(202) 720 - 0119 (202) 720 - 7880
Editor Maria Williams	maria.williams@usda.gov	(202) 690-4430

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