



Grain Transportation Report

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WEEKLY HIGHLIGHTS

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CMTS Study Highlights the Importance of Waterway Investment

The U.S. Committee on the Marine Transportation System (CMTS) has released a [report](#) produced on the value of investment in the marine transportation system, including both ports and inland waterways. Produced for CMTS by Inforum at the University of Maryland, the study explored four scenarios: one baseline (with continued status quo investment) and three scenarios with increased investment. The researchers found increased investment would yield between 54,700 and 182,500 additional jobs over baseline by 2025 and, by 2030, additional gross domestic product (GDP) over baseline would be \$8 billion to \$41 billion. This outcome represents a \$2-3 return on investment per dollar spent. Citing a [2019 USDA/AMS report](#) on the importance of the inland waterways, the study noted investment in waterway infrastructure is critical to continued U.S. competitiveness in the global soybean trade.

Diesel Fuel Prices Continue To Fall

During the week ending April 13, U.S. on-highway [diesel fuel prices](#) fell 4.1 cents per gallon to \$2.507. Prices have fallen each week since January 14, with declines totaling 56.2 cents per gallon, or 19 percent. In March, down \$24 per barrel from average February prices, crude oil prices averaged \$32 per barrel, constituting the lowest monthly average since January 2016. According to the Energy Information Administration's latest [Short-Term Energy Outlook](#), crude oil price declines since early 2020 are largely driven by the economic contraction caused by COVID-19. The price declines were also spurred by the sudden increase in crude oil supply after the Organization of the Petroleum Exporting Countries (OPEC) and partner countries suspended previously agreed on production cuts.

FMCSA Extends HOS Emergency Declaration Through May 15

The Department of Transportation's Federal Motor Carrier Safety Administration (FMCSA) will extend its national emergency declaration through May 15, 2020, or until the revocation of the coronavirus disease (COVID-19) national emergency declared by President Donald Trump—whichever is sooner. The extension will sustain relaxed hours-of-service (HOS) regulations for commercial vehicle drivers who transport COVID-19 emergency relief services, such as medical care, or essential materials, such as food, fuel, animal feed, and fertilizer.

FMCSA Waives Knowledge Test for Certain Third-Party CDL Test Examiners

To offset employee shortages and closures of State Driver Licensing Agencies (SDLA) caused by the COVID-19 emergency, [FMCSA has issued a waiver](#) easing requirements for commercial driver's license (CDL) test examiners. Under the waiver, third party CDL test examiners previously authorized by their State to administer the CDL skills test are now permitted to administer the CDL knowledge test without completing a CDL knowledge-test training course. The waiver will help meet the need for an adequate and sustained supply of drivers to transport essential services and supplies. The waiver will expire either on June 30, 2020, or when the national emergency declared by President Trump is revoked—whichever is sooner.

Snapshots by Sector

Export Sales

For the week ending April 2, [unshipped balances](#) of wheat, corn, and soybeans totaled 24.3 million metric tons (mmt). This represented a 23-percent decrease in outstanding sales, compared to the same time last year. Net [corn export sales](#) were 1.849 mmt, up 72 percent from the past week. Net [soybean export sales](#) were 0.523 mmt, down 45 percent from the previous week. Net weekly [wheat export sales](#) were 0.259 mmt, up significantly from the previous week.

Rail

U.S. Class I railroads originated 20,855 [grain carloads](#) during the week ending April 4. This was a 6-percent decrease from the previous week, 4 percent less than last year, and 11 percent lower than the 3-year average.

April shuttle [secondary railcar](#) bids/offers (per car) averaged \$0 for the week ending April 9. This was \$44 more than last week and \$242 less than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending April 11, [barge grain movements](#) totaled 661,018. This was 57 percent more than the previous week and 54 percent more than the same period last year.

For the week ending April 4, 427 grain barges [moved down river](#)—160 more barges than the previous week. There were 549 grain barges [unloaded in New Orleans](#), 13 percent less than the previous week.

Ocean

For the week ending April 9, 31 [oceangoing grain vessels](#) were loaded in the Gulf—11 percent more than the same period last year. Within the next 10 days (starting April 10), 51 vessels were expected to be loaded—11 percent fewer than the same period last year.

As of April 9, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$38.75. This was unchanged from the previous week. The rate from PNW to Japan was \$19.75 per mt, unchanged from the previous week.

Feature Article/Calendar

Partly Driven by COVID-19 Effects, First-Quarter 2020 Bulk Ocean Freight Rates Fell As Global Dry Bulk Trade Slumped

Many factors combined to slow the global dry bulk trade during first-quarter 2020. These included holidays (New Year and Chinese Lunar Year), weather-related supply disruptions—and of course, the coronavirus disease (COVID-19) outbreak. COVID-19 has delayed manufacturing activities in China and other parts of the world and, in turn, slowed global trade movements of bulk items. Thus, the dry bulk industry is among those most affected by the COVID-19 outbreak worldwide.

The multi-factor slowdown in global bulk movements reduced ocean freight rates for bulk commodities (including grain) from fourth quarter 2019 to first quarter 2020 (quarter to quarter). Despite multiple reasons for the slowdown, its outsized impact on China—including COVID-19's first hot spot in Wuhan—caused much of the slump in bulk trade, leading to lower freight rates. According to Drewry Maritime Research, Inc. (Drewry), China's gross domestic product (GDP) represents 16 percent of the world's GDP, and China represents 33 percent of the world's dry bulk trade. Hence, any large slowdown in China reverberates globally. We examine the effect of reduced dry bulk trade on bulk ocean freight rates from quarter to quarter, from first quarter 2019 to first quarter 2020 (year to year), and from the 4-year average (table below and figure 1).

During the first quarter, the cost of shipping a metric ton (mt) of grain from the U.S. Gulf to Japan averaged \$43.38, down 10 percent quarter to quarter, but up 6 percent year to year and up 20 percent from the 4-year average. The cost of shipping from the Pacific Northwest (PNW) to Japan averaged \$23.10 per mt, down 12 percent quarter to quarter, but up 1 percent year to year, and up 16 percent from the 4-year average. It cost \$14.82 per mt to ship grain from the U.S. Gulf to Europe, down 22 percent quarter to quarter, down 11 percent year to year, and down 1 percent from the 4-year average.

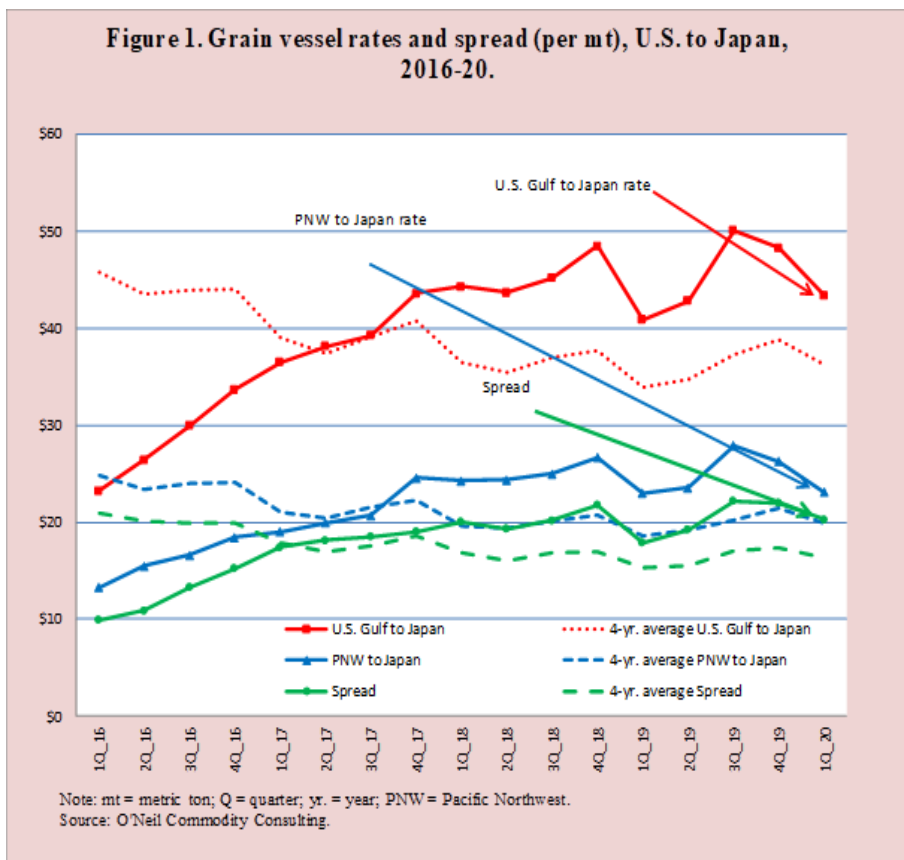
Ocean freight rates for grain routes first quarter 2020							
Route	Jan.	Feb.	Mar.	1 st quarter 2020	Change from		
					4 th qtr. '19	1 st qtr. '19	4-yr. avg.
	--\$/mt--			--\$/mt--	Percent		
U.S. Gulf to Japan	45.45	42.88	41.81	43.38	-10	6	20
PNW to Japan	24.60	22.63	22.06	23.10	-12	1	16
Spread*	20.85	20.25	19.75	20.28	-8	13	24
U.S. Gulf to Europe	16.65	14.50	13.31	14.82	-22	-11	-1

Note: qtr. = quarter; avg = average; mt = metric ton; yr = year; PNW = Pacific Northwest.
 *Spread is the difference between ocean freight rates for shipping grain from the U.S. Gulf to Japan and PNW to Japan.
 Source: O'Neil Commodity Consulting.

As typically happens every year, ocean freight rates started falling with the globally celebrated New Year holidays and continued falling with Chinese Lunar Year holiday (January 25 to February 8). However, additionally, this year, the COVID-19 outbreak began affecting the dry bulk sector in January when the first death from the virus was reported in China. The epicenter of China's outbreak, Wuhan, is a major manufacturing hub that uses steel and aluminum. Consequently, the shutdown of river ports in this region hampered steel production and, likewise, iron ore demand. China's COVID-19 outbreak continued to impact the country's crude steel production and iron ore imports through February and March.

According to Drewry, the effect of China’s COVID-19 outbreak on the world economy was more severe than that of the severe acute respiratory syndrome (SARS) outbreak in 2003. In 2003, China’s GDP represented only 4 percent of global GDP, versus 16 percent in 2019. Chinese share of global dry bulk trade was 11 percent in 2003, compared to 33 percent in 2018-19.

With COVID-19’s spread to other major industrial Nations in the latter part of the quarter, manufacturing and other trade activities slowed around the world. The ongoing lockdown has affected iron ore and coal production in countries such as South Africa and Colombia (per Drewry). A South African company, Anglo America, has reduced its current year’s annual production guidance for operations by as much as 1.5-3.5 million tons—less iron ore than the company’s actual production in 2019. Meanwhile, guidance for coal production has been reduced by 1.5-2.0 million tons. Additionally, heavy rains in one of Brazil’s major iron-ore-producing regions curtailed iron ore supply.



Current Market Analysis and Outlook

For the week ending April 9, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$38.75—15 percent less than January 2 (first available rate in 2020) and 8 percent less than the same week last year. The rate from PNW to Japan was \$19.75 per mt—21 percent less than January 2 and 16 percent less than the same week last year. Despite COVID-19’s downward pressure on dry bulk trade and bulk ocean freight rates, the pandemic may, also, drive up ocean freight rates in the medium or long term. For example, the pandemic affects shipbuilding activities in the Far East countries like China, South Korea, and Japan, which account for 97 percent of order books. This could reduce vessel delivery.

In 2020, of the 55 million deadweight tons (mdwt) of dry bulk vessels scheduled for delivery worldwide, 30.5 million mdwt are built in China (according to Drewry). Roughly 56 percent of scheduled delivery in 2020, China’s share of that total is projected to increase to 67 percent in 2021. Besides the slowdown in shipbuilding activities, a greater reluctance by ship owners to take deliveries may further reduce vessel supply. In fact, only 1.8 mdwt of vessel capacity were delivered in February, down 23 percent year to year. Lower vessel supply could put upward pressure on ocean freight rates. Also, the start of Brazilian soybean season may put upward pressure on Panamax rates as demand for Panamax vessels improves for movements from East Coast South America to China and European Union.

Surajudeen.Olowolayemo@usda.gov

Grain Transportation Indicators

Table 1

Grain transport cost indicators¹

For the week ending	Truck	Rail		Barge	Ocean	
		Unit train	Shuttle		Gulf	Pacific
04/15/20	168	n/a	224	171	173	140
04/08/20	171	n/a	222	183	173	140

¹Indicator: 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)

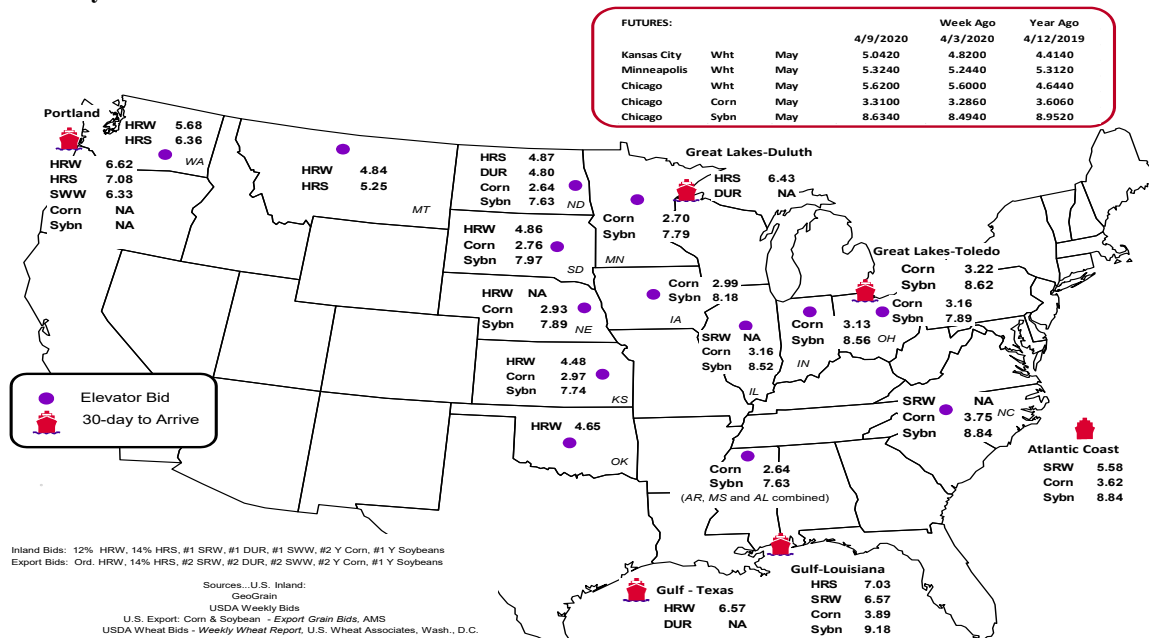
Commodity	Origin-destination	4/9/2020	4/3/2020
Corn	IL-Gulf	-0.73	-0.72
Corn	NE-Gulf	-0.96	-0.96
Soybean	IA-Gulf	-1.00	-1.00
HRW	KS-Gulf	-2.09	-2.11
HRS	ND-Portland	-2.21	-2.11

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		Pacific	Atlantic &	Total	Week ending	Cross-border Mexico ³
	Gulf	Texas Gulf	Northwest	East Gulf			
4/08/2020 ^p	735	804	4,868	191	6,598	4/4/2020	3,028
4/01/2020 ^r	112	658	4,428	240	5,438	3/28/2020	2,474
2020 YTD ^r	5,203	9,951	64,351	3,096	82,601	2020 YTD	33,001
2019 YTD ^r	11,912	16,818	84,085	5,513	118,328	2019 YTD	31,139
2020 YTD as % of 2019 YTD	44	59	77	56	70	% change YTD	106
Last 4 weeks as % of 2019 ²	23	59	71	72	64	Last 4wks. % 2019	125
Last 4 weeks as % of 4-year avg. ²	52	47	77	55	69	Last 4wks. % 4 yr.	123
Total 2019	40,974	51,167	251,181	16,192	359,514	Total 2019	127,622
Total 2018	22,118	46,532	310,449	21,432	400,531	Total 2018	129,674

¹Data is incomplete as it is voluntarily provided.

²Compared with same 4-weeks in 2019 and prior 4-year average.

³Cross-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.

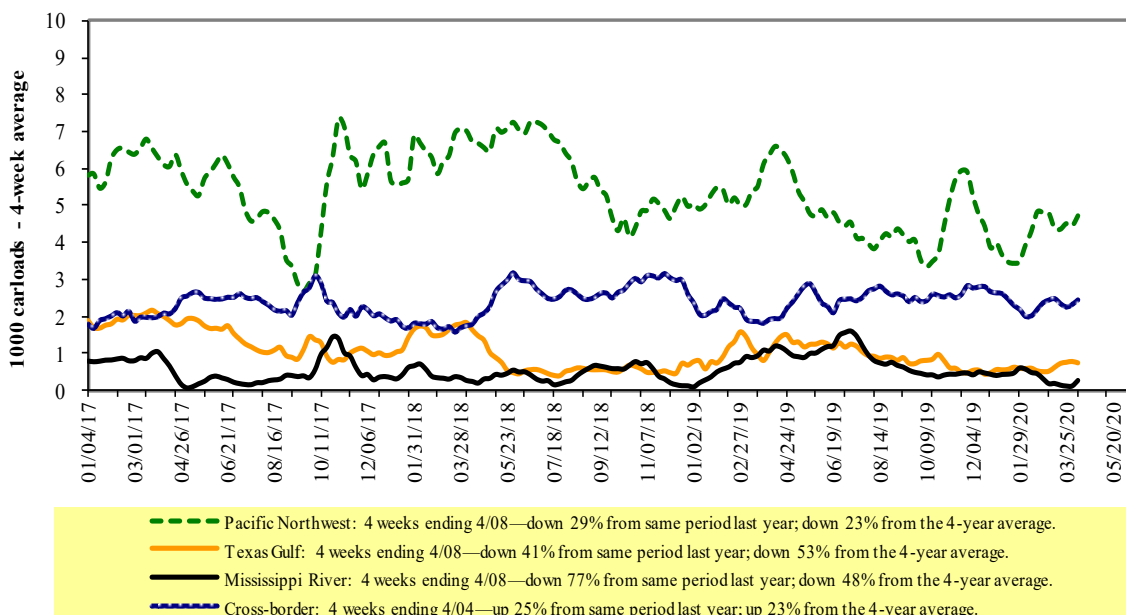
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available; wks. = weeks; avg. = average.

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: 4/4/2020	East		West			U.S. total	Canada	
	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,828	2,756	10,409	958	4,904	20,855	5,485	4,854
This week last year	2,421	2,767	10,252	1,253	5,109	21,802	5,703	5,589
2020 YTD	24,161	32,307	146,736	15,204	63,433	281,841	49,861	53,572
2019 YTD	28,214	37,486	147,601	16,081	69,918	299,300	57,407	57,395
2020 YTD as % of 2019 YTD	86	86	99	95	91	94	87	93
Last 4 weeks as % of 2019*	77	89	106	86	102	99	94	92
Last 4 weeks as % of 3-yr. avg.**	86	93	93	108	87	91	103	95
Total 2019	91,611	137,166	568,369	58,527	260,269	1,115,942	212,536	235,892

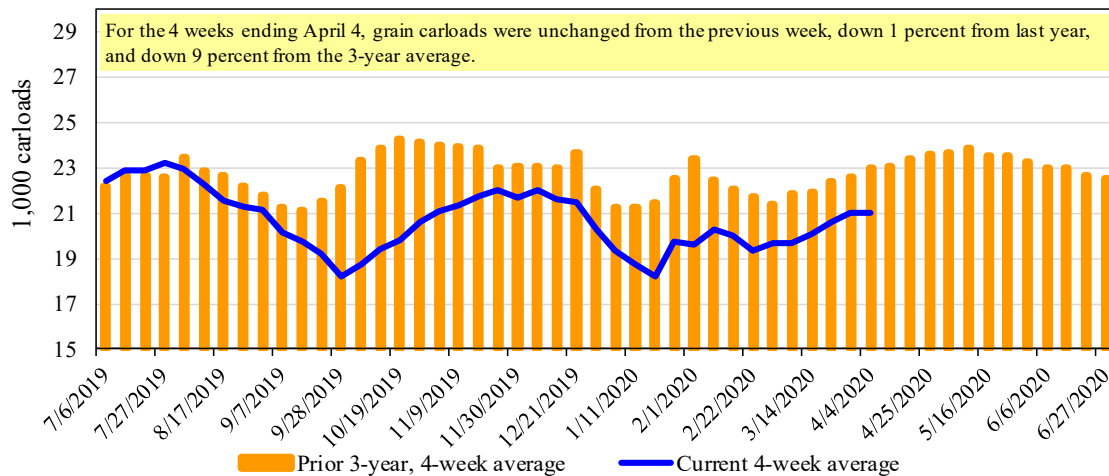
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

**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 offerings¹ (\$/car)²

For the week ending: 4/9/2020		Delivery period							
		Apr-20	Apr-19	May-20	May-19	Jun-20	Jun-19	Jul-20	Jul-19
BNSF ³	COT grain units	0	n/a	no bids	n/a	no bids	n/a	no bids	n/a
	COT grain single-car	0	n/a	0	n/a	0	n/a	0	n/a
UP ⁴	GCAS/Region 1	no offer	no offer	no offer	no offer	no offer	no bids	n/a	n/a
	GCAS/Region 2	no bid	no offer	no bid	no offer	no bid	179	n/a	n/a

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

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

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

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

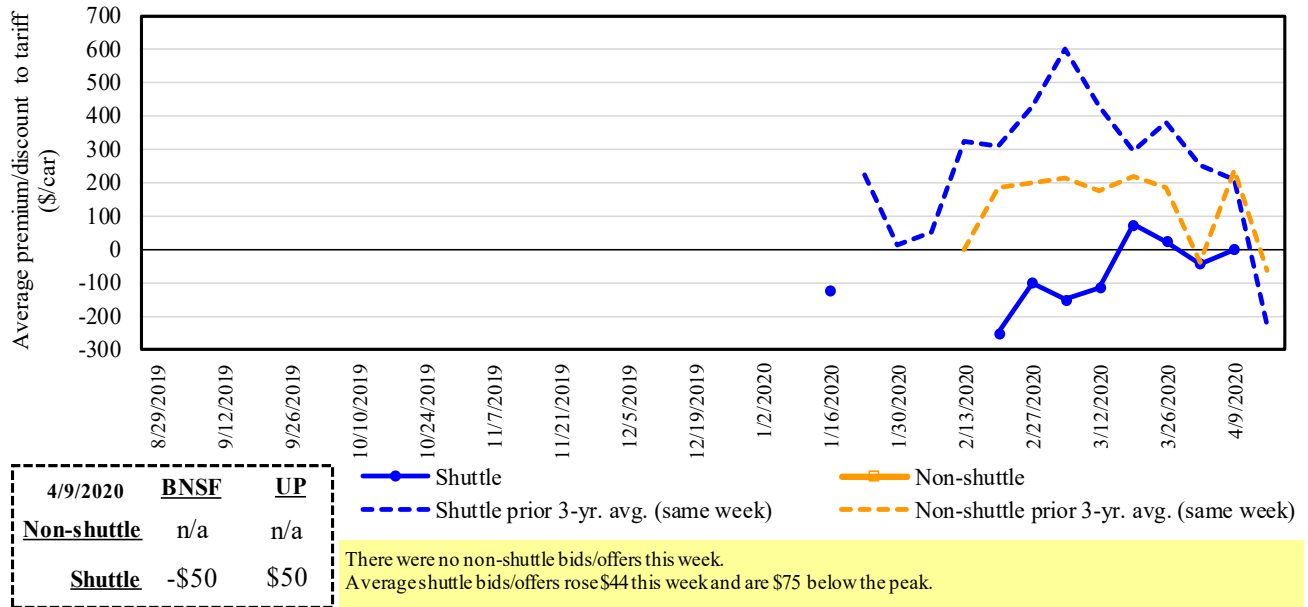
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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

Source: USDA, Agricultural Marketing Service.

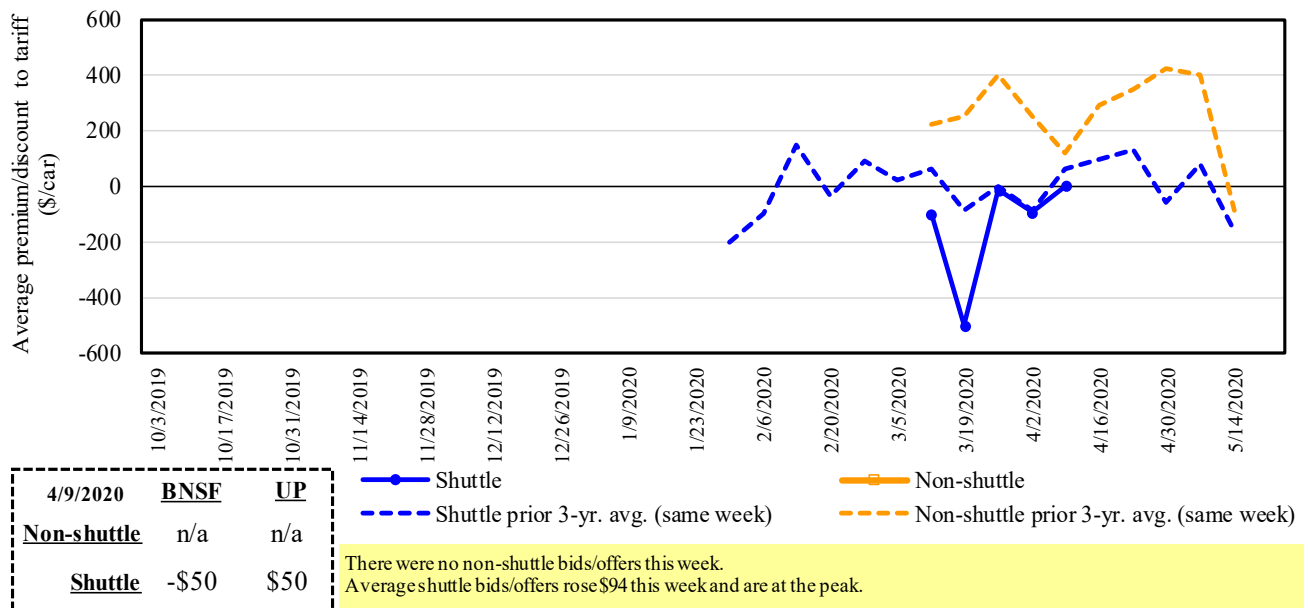
The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4
Bids/offers for railcars to be delivered in April 2020, 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.

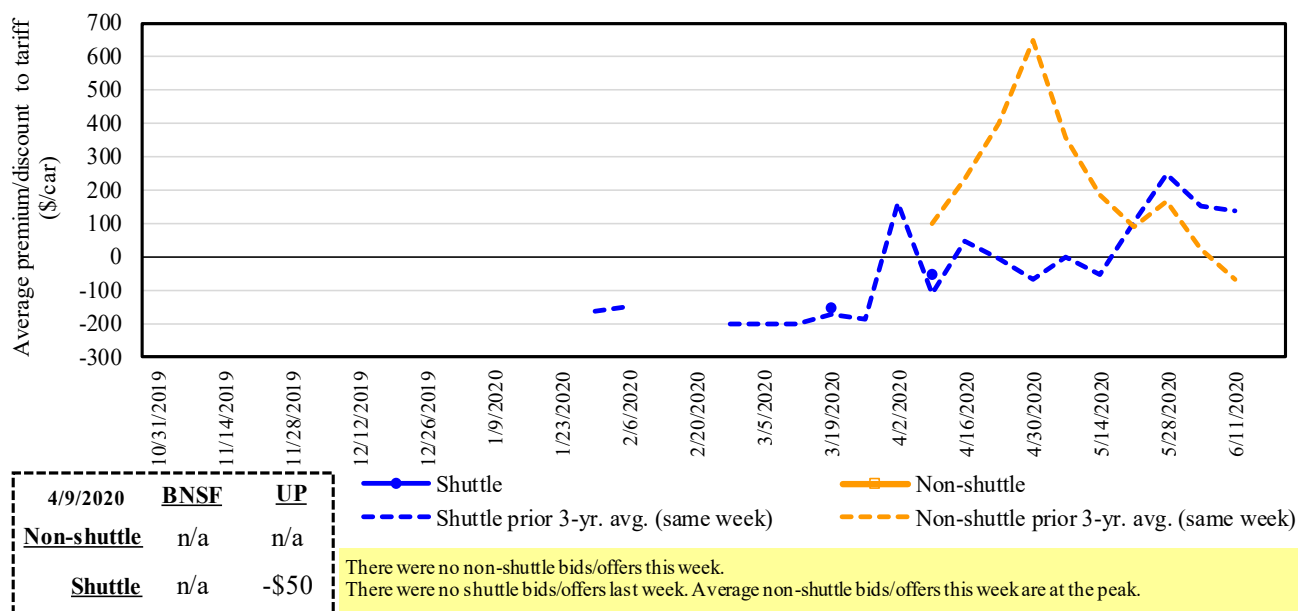
Figure 5
Bids/offers for railcars to be delivered in May 2020, secondary market



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.

Figure 6

Bids/offers for railcars to be delivered in June 2020, 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)¹

For the week ending: 4/9/2020		Delivery period					
		Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
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 2019	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 same week 2019	n/a	n/a	n/a	n/a	n/a	n/a
Shuttle	BNSF-GF	(50)	(50)	n/a	n/a	n/a	n/a
	Change from last week	(25)	38	n/a	n/a	n/a	n/a
	Change from same week 2019	(333)	(75)	n/a	n/a	n/a	n/a
	UP-Pool	50	50	(50)	(200)	n/a	n/a
	Change from last week	113	150	n/a	n/a	n/a	n/a
Change from same week 2019	(150)	17	n/a	n/a	n/a	n/a	

¹Average 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 shipments¹

April 2020	Origin region ³	Destination region ³	Tariff rate/car	Fuel surcharge per car	Tariff plus surcharge per:		Percent change Y/Y ⁴
					metric ton	bushel ²	
Unit train							
Wheat	Wichita, KS	St. Louis, MO	\$3,983	\$86	\$40.41	\$1.10	0
	Grand Forks, ND	Duluth-Superior, MN	\$4,333	\$0	\$43.03	\$1.17	2
	Wichita, KS	Los Angeles, CA	\$7,240	\$0	\$71.90	\$1.96	1
	Wichita, KS	New Orleans, LA	\$4,525	\$151	\$46.44	\$1.26	-1
	Sioux Falls, SD	Galveston-Houston, TX	\$6,976	\$0	\$69.28	\$1.89	1
	Colby, KS	Galveston-Houston, TX	\$4,801	\$166	\$49.32	\$1.34	0
Corn	Amarillo, TX	Los Angeles, CA	\$5,121	\$231	\$53.14	\$1.45	0
	Champaign-Urbana, IL	New Orleans, LA	\$3,900	\$171	\$40.43	\$1.03	-3
	Toledo, OH	Raleigh, NC	\$6,816	\$0	\$67.69	\$1.72	4
	Des Moines, IA	Davenport, IA	\$2,415	\$36	\$24.34	\$0.62	7
	Indianapolis, IN	Atlanta, GA	\$5,818	\$0	\$57.78	\$1.47	3
	Indianapolis, IN	Knoxville, TN	\$4,874	\$0	\$48.40	\$1.23	4
Soybeans	Des Moines, IA	Little Rock, AR	\$3,800	\$106	\$38.79	\$0.99	-2
	Des Moines, IA	Los Angeles, CA	\$5,680	\$310	\$59.48	\$1.51	-1
	Minneapolis, MN	New Orleans, LA	\$3,631	\$156	\$37.61	\$1.02	-12
	Toledo, OH	Huntsville, AL	\$5,630	\$0	\$55.91	\$1.52	3
	Indianapolis, IN	Raleigh, NC	\$6,932	\$0	\$68.84	\$1.87	3
	Indianapolis, IN	Huntsville, AL	\$5,107	\$0	\$50.71	\$1.38	3
	Champaign-Urbana, IL	New Orleans, LA	\$4,645	\$171	\$47.83	\$1.30	-2
Shuttle train							
Wheat	Great Falls, MT	Portland, OR	\$4,143	\$0	\$41.14	\$1.12	2
	Wichita, KS	Galveston-Houston, TX	\$4,361	\$0	\$43.31	\$1.18	2
	Chicago, IL	Albany, NY	\$7,074	\$0	\$70.25	\$1.91	20
	Grand Forks, ND	Portland, OR	\$5,801	\$0	\$57.61	\$1.57	1
	Grand Forks, ND	Galveston-Houston, TX	\$6,121	\$0	\$60.78	\$1.65	1
	Colby, KS	Portland, OR	\$6,012	\$272	\$62.40	\$1.70	1
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	\$171	\$39.63	\$1.01	0
	Lincoln, NE	Galveston-Houston, TX	\$3,880	\$0	\$38.53	\$0.98	0
	Des Moines, IA	Amarillo, TX	\$4,220	\$134	\$43.24	\$1.10	4
	Minneapolis, MN	Tacoma, WA	\$5,180	\$0	\$51.44	\$1.31	0
Soybeans	Council Bluffs, IA	Stockton, CA	\$5,000	\$0	\$49.65	\$1.26	0
	Sioux Falls, SD	Tacoma, WA	\$5,850	\$0	\$58.09	\$1.58	2
	Minneapolis, MN	Portland, OR	\$5,900	\$0	\$58.59	\$1.59	2
	Fargo, ND	Tacoma, WA	\$5,750	\$0	\$57.10	\$1.55	2
	Council Bluffs, IA	New Orleans, LA	\$4,875	\$197	\$50.37	\$1.37	2
	Toledo, OH	Huntsville, AL	\$4,805	\$0	\$47.72	\$1.30	4
	Grand Island, NE	Portland, OR	\$5,260	\$278	\$55.00	\$1.50	-8

¹A 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.

²Approximate load per car = 111 short tons (100.7 metric tons): corn 56 pounds per bushel (lbs/bu), wheat and soybeans 60 lbs/bu.

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

⁴Percentage change year over year (Y/Y) calculated using tariff rate plus fuel surcharge.

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

Table 8

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

Commodity	Date: April 2020		Tariff rate per car ¹	Fuel surcharge per car ²	Tariff rate plus fuel surcharge per:		Percent change ⁴ Y/Y
	Origin state	Destination region			metric ton ³	bushel ³	
Wheat	MT	Chihuahua, CI	\$7,509	\$0	\$76.72	\$2.09	3
	OK	Cuautitlan, EM	\$6,775	\$118	\$70.44	\$1.92	0
	KS	Guadalajara, JA	\$7,534	\$502	\$82.10	\$2.23	3
	TX	Salinas Victoria, NL	\$4,329	\$72	\$44.96	\$1.22	0
Corn	IA	Guadalajara, JA	\$8,902	\$433	\$95.39	\$2.42	5
	SD	Celaya, GJ	\$8,140	\$0	\$83.17	\$2.11	3
	NE	Queretaro, QA	\$8,278	\$244	\$87.08	\$2.21	1
	SD	Salinas Victoria, NL	\$6,905	\$0	\$70.55	\$1.79	0
	MO	Tlahpantla, EM	\$7,643	\$238	\$80.53	\$2.04	1
	SD	Torreon, CU	\$7,690	\$0	\$78.57	\$1.99	3
Soybeans	MO	Bojay (Tula), HG	\$8,547	\$405	\$91.46	\$2.49	4
	NE	Guadalajara, JA	\$9,172	\$424	\$98.04	\$2.67	4
	IA	El Castillo, JA	\$9,490	\$0	\$96.97	\$2.64	4
	KS	Torreon, CU	\$7,964	\$295	\$84.38	\$2.29	4
Sorghum	NE	Celaya, GJ	\$7,772	\$385	\$83.34	\$2.12	4
	KS	Queretaro, QA	\$8,108	\$148	\$84.35	\$2.14	1
	NE	Salinas Victoria, NL	\$6,713	\$119	\$69.80	\$1.77	1
	NE	Torreon, CU	\$7,092	\$272	\$75.24	\$1.91	2

¹Rates 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.

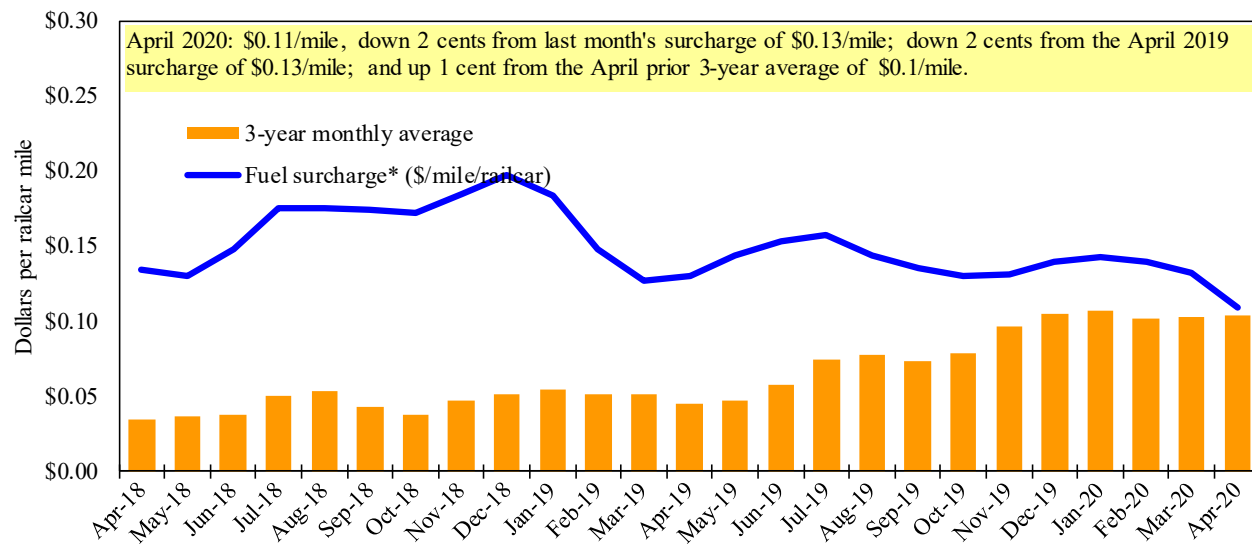
²Fuel surcharge adjusted to reflect the change in Ferrocarril Mexicano, S.A. de C.V railroad fuel surcharge policy as of 10/01/2009.

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

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

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

Figure 7

Railroad fuel surcharges, North American weighted average¹

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.

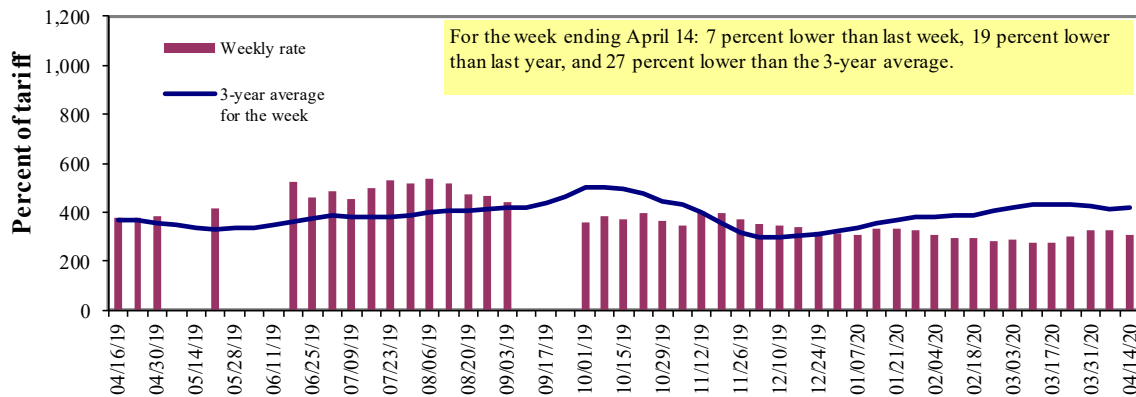
**CSX strike price changed from \$2.00/gal. to \$3.75/gal. starting January 1, 2015.

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}



¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-week moving average of the 3-year average.

Source: USDA, Agricultural Marketing Service.

Table 9

Weekly barge freight rates: Southbound only

		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate¹	4/14/2020	393	324	308	203	210	210	193
	4/7/2020	383	343	330	215	223	223	204
\$/ton	4/14/2020	24.33	17.24	14.29	8.10	9.85	8.48	6.06
	4/7/2020	23.71	18.25	15.31	8.58	10.46	9.01	6.41
Current week % change from the same week:								
	Last year	-	-	-19	-28	-34	-34	-30
	3-year avg. ²	-16	-22	-27	-39	-44	-45	-38
Rate¹	May	378	323	208	205	208	208	193
	July	378	323	-	208	210	210	193

¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-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:
 $(\text{Rate} * 1976 \text{ tariff benchmark rate per ton}) / 100$

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

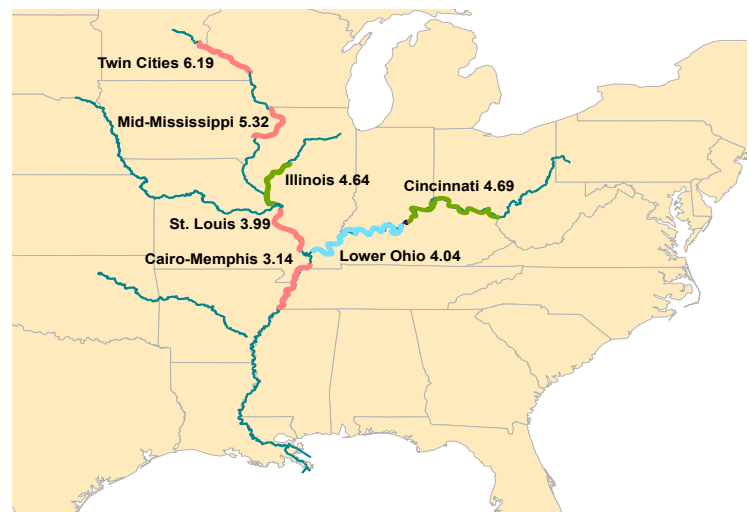
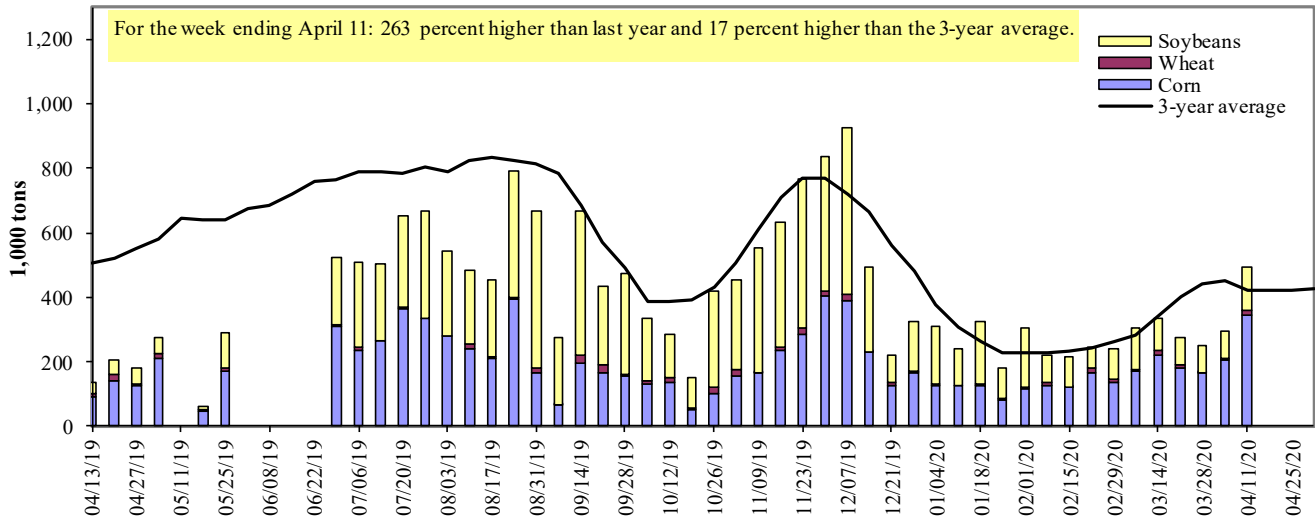


Figure 10

Barge movements on the Mississippi River¹ (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 04/11/2020	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	20	0	8	0	28
Winfield, MO (L25)	80	0	55	0	135
Alton, IL (L26)	340	13	132	0	485
Granite City, IL (L27)	346	13	134	0	493
Illinois River (La Grange)	157	9	50	0	217
Ohio River (Olmsted)	82	0	37	0	119
Arkansas River (L1)	0	33	17	0	50
Weekly total - 2020	428	46	188	0	661
Weekly total - 2019	248	51	128	2	429
2020 YTD ¹	4,005	468	3,098	13	7,583
2019 YTD ¹	3,454	690	2,883	42	7,068
2020 as % of 2019 YTD	116	68	107	32	107
Last 4 weeks as % of 2019 ²	101	50	81	13	89
Total 2019	12,780	1,631	14,683	154	29,247

¹ Weekly total, YTD (year-to-date), and calendar year total include MS/27, OH/Olmsted, and AR/1; Other refers to oats, barley, sorghum, and rye. L (as in "L15") refers to a lock or lock and dam facility. Olmsted = Olmsted Locks and Dam. La Grange = La Grange Lock and Dam.

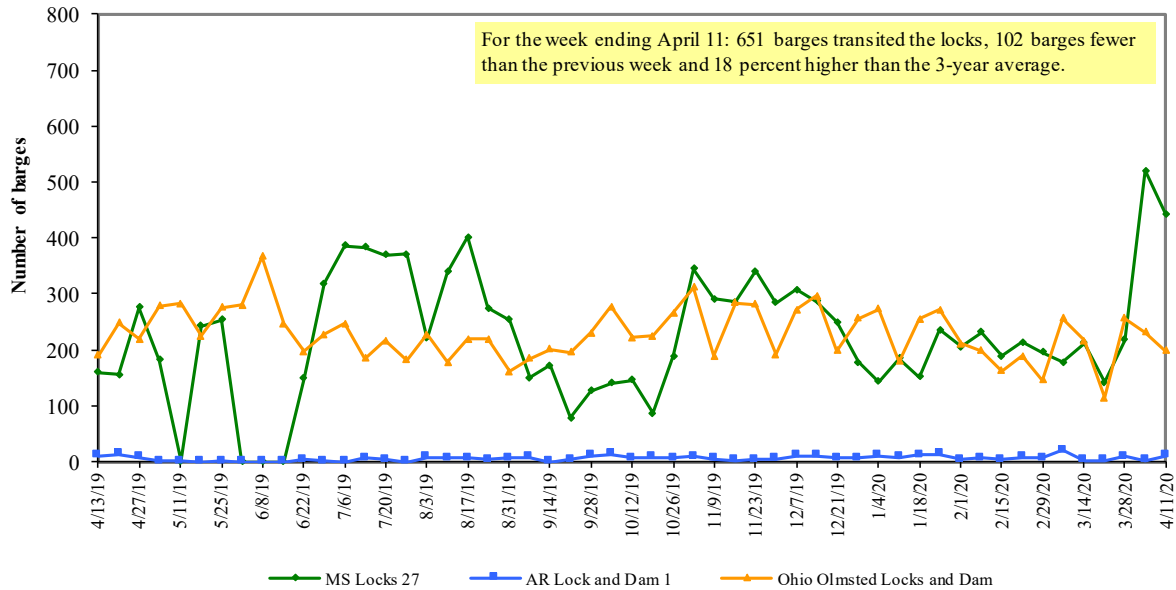
² As a percent of same period in 2019.

Note: Total may not add exactly because of rounding. Starting from 11/24/2018, weekly movement through Ohio 52 is replaced by Olmsted.

Source: U.S. Army Corps of Engineers.

Figure 11

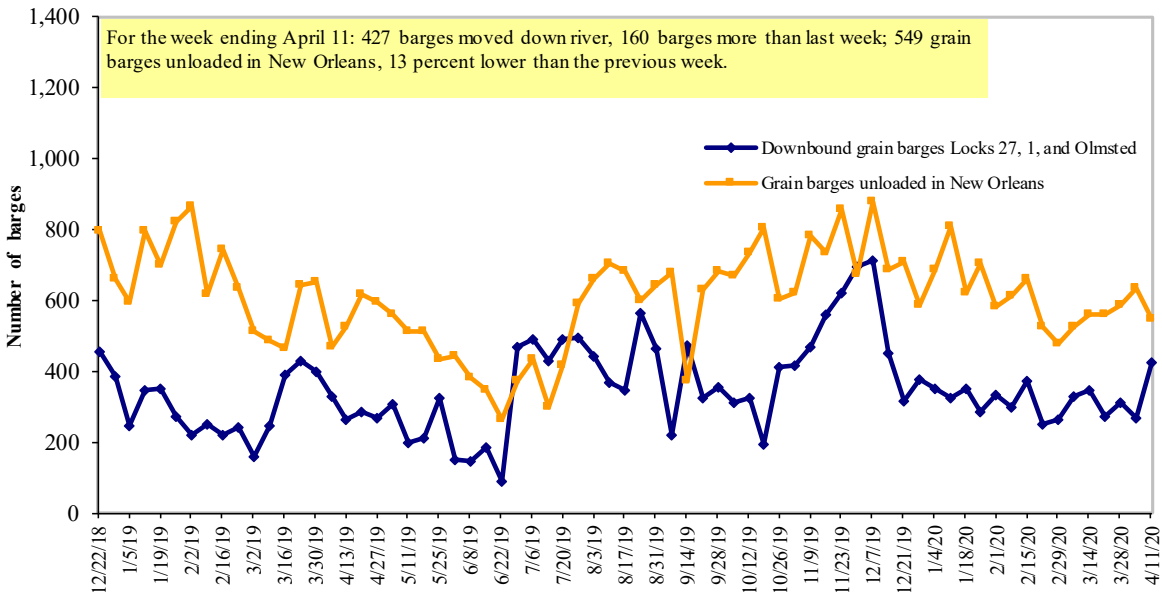
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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 4/13/2020 (U.S. \$/gallon)

Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	2.599	-0.035	-0.554
	New England	2.715	-0.030	-0.490
	Central Atlantic	2.782	-0.045	-0.560
	Lower Atlantic	2.450	-0.030	-0.565
II	Midwest	2.353	-0.041	-0.657
III	Gulf Coast	2.289	-0.036	-0.610
IV	Rocky Mountain	2.497	-0.044	-0.585
	West Coast	3.028	-0.062	-0.623
V	West Coast less California	2.695	-0.059	-0.557
	California	3.302	-0.066	-0.665
Total	United States	2.507	-0.041	-0.611

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

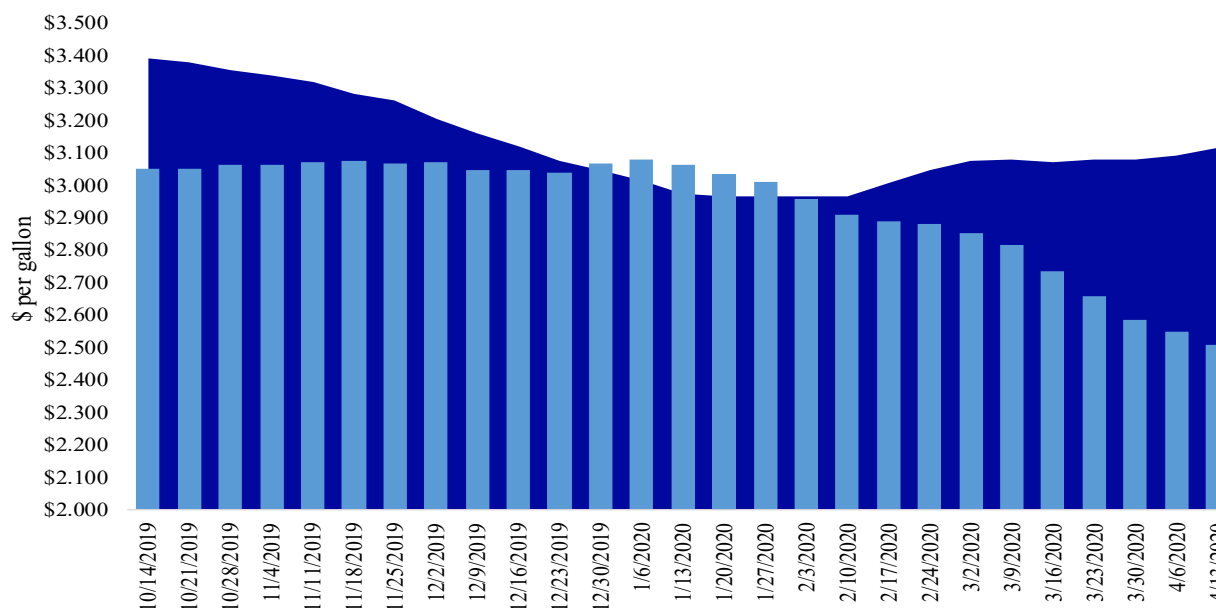
Source: U.S. Department of Energy, Energy Information Administration.

Figure 13

Weekly diesel fuel prices, U.S. average

For the week ending April 13, the U.S. average diesel fuel price decreased 4.1 cents from the previous week to \$2.507 per gallon, 61.1 cents below the same week last year.

■ Last year \$3.118
■ Current year \$2.507



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)

For the week ending	Wheat					All wheat	Corn	Soybeans	Total
	HRW	SRW	HRS	SWW	DUR				
Export balances¹									
4/2/2020	1,703	288	1,567	1,112	216	4,886	14,160	5,263	24,309
This week year ago	2,433	894	1,342	1,044	84	5,796	12,719	13,017	31,532
Cumulative exports-marketing year²									
2019/20 YTD	7,715	2,071	5,785	3,899	685	20,155	19,597	32,122	71,874
2018/19 YTD	6,271	2,404	5,476	4,251	399	18,801	31,024	30,830	80,655
YTD 2019/20 as % of 2018/19	123	86	106	92	172	107	63	104	89
Last 4 wks. as % of same period 2018/19*	74	33	118	107	247	86	107	37	74
Total 2018/19	8,591	3,204	6,776	5,164	479	24,214	48,924	46,189	119,327
Total 2017/18	9,150	2,343	5,689	4,854	384	22,419	57,209	56,214	135,842

¹ Current unshipped (outstanding) export sales to date.

² Shipped export sales to date; new marketing year now in effect for wheat, corn, and soybeans.

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

Source: USDA, Foreign Agricultural Service.

Table 13

Top 5 importers¹ of U.S. corn

For the week ending 4/02/2020	Total commitments ²		% change current MY from last MY	Exports ³ 3-yr. avg. 2016-18
	2019/20 current MY	2018/19 last MY*		
	- 1,000 mt -			
Mexico	11,830	13,954	(15)	14,659
Japan	7,552	9,355	(19)	11,955
Korea	1,741	3,548	(51)	4,977
Colombia	3,103	3,636	(15)	4,692
Peru	36	1,965	(98)	2,808
Top 5 importers	24,261	32,458	(25)	39,091
Total U.S. corn export sales	33,756	43,743	(23)	54,024
% of projected exports	77%	83%		
Change from prior week ²	1,849	548		
Top 5 importers' share of U.S. corn export sales	72%	74%		72%
USDA forecast April 2020	43,893	52,545	(16)	
Corn use for ethanol USDA forecast, April 2020	128,270	136,601	(6)	

¹Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2018/19; marketing year (MY) = Sep 1 - Aug 31.

²Cumulative 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.

³FAS 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 importers¹ of U.S. soybeans

For the week ending 4/2/2020	Total commitments ²		% change current MY from last MY	Exports ³ 3-yr. avg. 2016-18
	2019/20 current MY	2018/19 last MY*		
	- 1,000 mt -			- 1,000 mt -
China	12,617	12,921	(2)	25,733
Mexico	4,073	4,652	(12)	4,271
Indonesia	1,543	1,767	(13)	2,386
Japan	2,064	2,044	1	2,243
Egypt	2,333	2,302	1	1,983
Top 5 importers	22,631	23,686	(4)	36,616
Total U.S. soybean export sales	37,385	43,847	(15)	53,746
% of projected exports	77%	92%		
change from prior week ²	523	270		
Top 5 importers' share of U.S. soybean export sales	61%	54%		68%
USDA forecast, April 2020	48,365	47,629	102	

¹Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2018/19; marketing year (MY) = Sep 1 - Aug 31.

²Cumulative 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.

³FAS 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 importers¹ of all U.S. wheat

For the week ending 4/2/2020	Total commitments ²		% change current MY from last MY	Exports ³ 3-yr. avg. 2016-18
	2019/20 current MY	2018/19 last MY*		
	- 1,000 mt -			- 1,000 mt -
Philippines	3,210	3,041	6	3,047
Mexico	3,628	3,063	18	3,034
Japan	2,680	2,707	(1)	2,695
Nigeria	1,538	1,432	7	1,564
Indonesia	997	1,314	(24)	1,381
Korea	1,570	1,547	1	1,355
Taiwan	1,288	1,103	17	1,164
Egypt	101	812	(88)	821
Thailand	854	744	15	747
Iraq	262	616	(57)	574
Top 10 importers	16,128	16,379	(2)	16,382
Total U.S. wheat export sales	25,042	24,597	2	24,388
% of projected exports	93%	96%		
change from prior week ²	259	273		
Top 10 importers' share of U.S. wheat export sales	64%	67%		67%
USDA forecast, April 2020	26,839	25,504	5	

¹Based on USDA, Foreign Agricultural Service(FAS) marketing year ranking reports for 2018/19; Marketing year (MY) = Jun 1 - May 31.

²Cumulative 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.

³FAS 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 04/09/20	Previous week*	Current week as % of previous	2020 YTD*	2019 YTD*	2020 YTD as % of 2019 YTD	Last 4-weeks as % of:		2019 total*
							Last year	Prior 3-yr. avg.	
Pacific Northwest									
Wheat	501	178	281	4,430	3,712	119	111	100	13,961
Corn	237	185	128	1,883	3,420	55	83	63	7,047
Soybeans	68	4	n/a	2,206	3,948	56	20	31	11,969
Total	806	367	219	8,519	11,080	77	70	68	32,977
Mississippi Gulf									
Wheat	63	19	333	1,033	1,427	72	56	53	4,448
Corn	567	855	66	7,850	7,795	101	103	86	20,763
Soybeans	264	194	136	7,538	7,905	95	85	81	31,398
Total	894	1,068	84	16,420	17,127	96	93	82	56,609
Texas Gulf									
Wheat	35	113	31	1,066	1,740	61	50	53	6,009
Corn	0	30	0	168	177	95	63	57	640
Soybeans	0	0	n/a	7	0	n/a	n/a	n/a	2
Total	35	143	24	1,240	1,917	65	52	53	6,650
Interior									
Wheat	43	57	74	698	442	158	208	201	1,987
Corn	207	187	111	2,204	1,966	112	118	105	7,857
Soybeans	117	108	109	2,068	1,858	111	82	93	7,043
Total	368	352	104	4,969	4,265	116	111	110	16,887
Great Lakes									
Wheat	0	0	n/a	1	42	2	0	0	1,339
Corn	0	0	n/a	0	0	n/a	n/a	n/a	11
Soybeans	0	0	n/a	0	43	0	0	0	493
Total	0	0	n/a	1	85	1	0	0	1,844
Atlantic									
Wheat	0	1	n/a	1	32	2	2	3	37
Corn	0	0	n/a	0	42	0	0	0	99
Soybeans	15	10	149	311	425	73	54	37	1,353
Total	15	11	141	311	500	62	39	31	1,489
U.S. total from ports*									
Wheat	641	369	174	7,228	7,395	98	88	84	27,781
Corn	1,012	1,257	81	12,104	13,401	90	98	81	36,417
Soybeans	465	316	147	12,128	14,178	86	59	67	52,258
Total	2,117	1,942	109	31,460	34,974	90	84	78	116,457

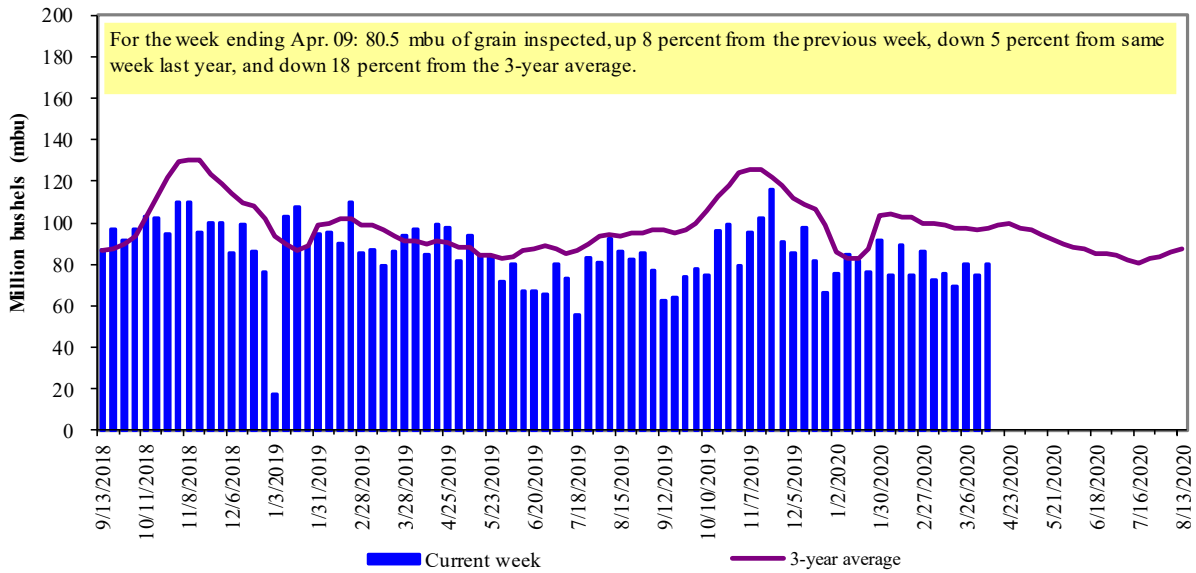
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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)

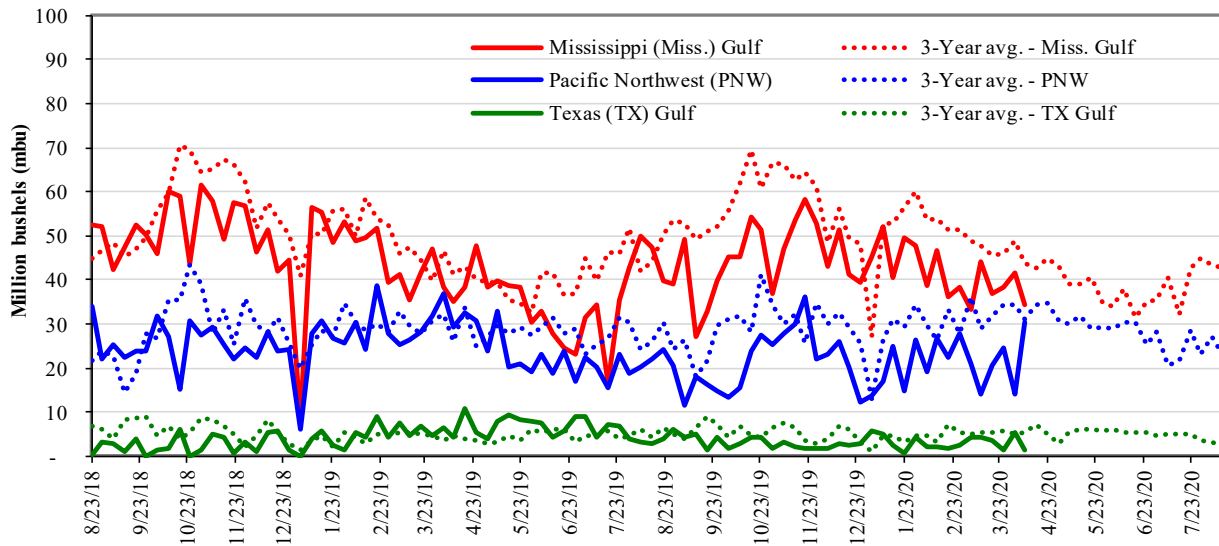


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

U.S. Grain inspections: U.S. Gulf and PNW¹ (wheat, corn, and soybeans)



Week ending 04/09/20 inspections (mbu):	Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
MS Gulf: 34.3	Last wk:	down 17	down 76	down 24	up 116
PNW: 30.2	Last Year (same wk):	down 2	down 71	down 9	up 3
TX Gulf: 1.3	3-yr avg.(4-wk. mov. Avg):	down 25	down 76	down 31	down 8

Source: USDA, Federal Grain Inspection Service.

Ocean Transportation

Table 17

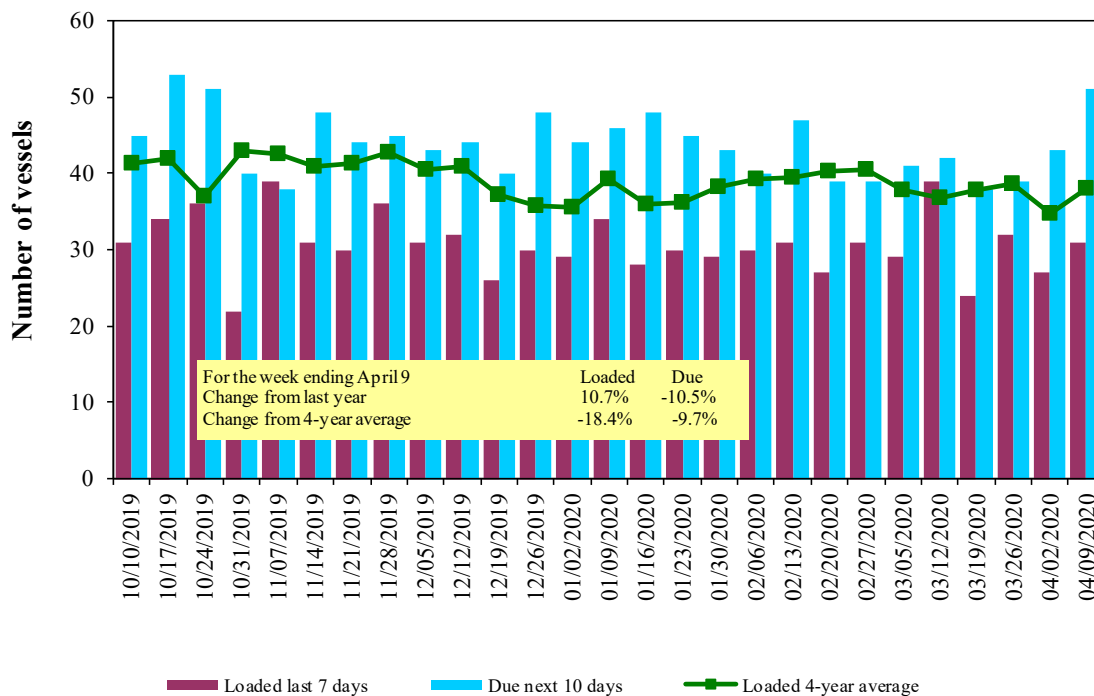
Weekly port region grain ocean vessel activity (number of vessels)

Date	Gulf			Pacific Northwest
	In port	Loaded	Due next	In port
		7-days	10-days	
4/9/2020	30	31	51	10
4/2/2020	26	27	43	11
2019 range	(26...61)	(18...44)	(33...69)	(8...33)
2019 average	40	31	49	17

Source: USDA, Agricultural Marketing Service.

Figure 16

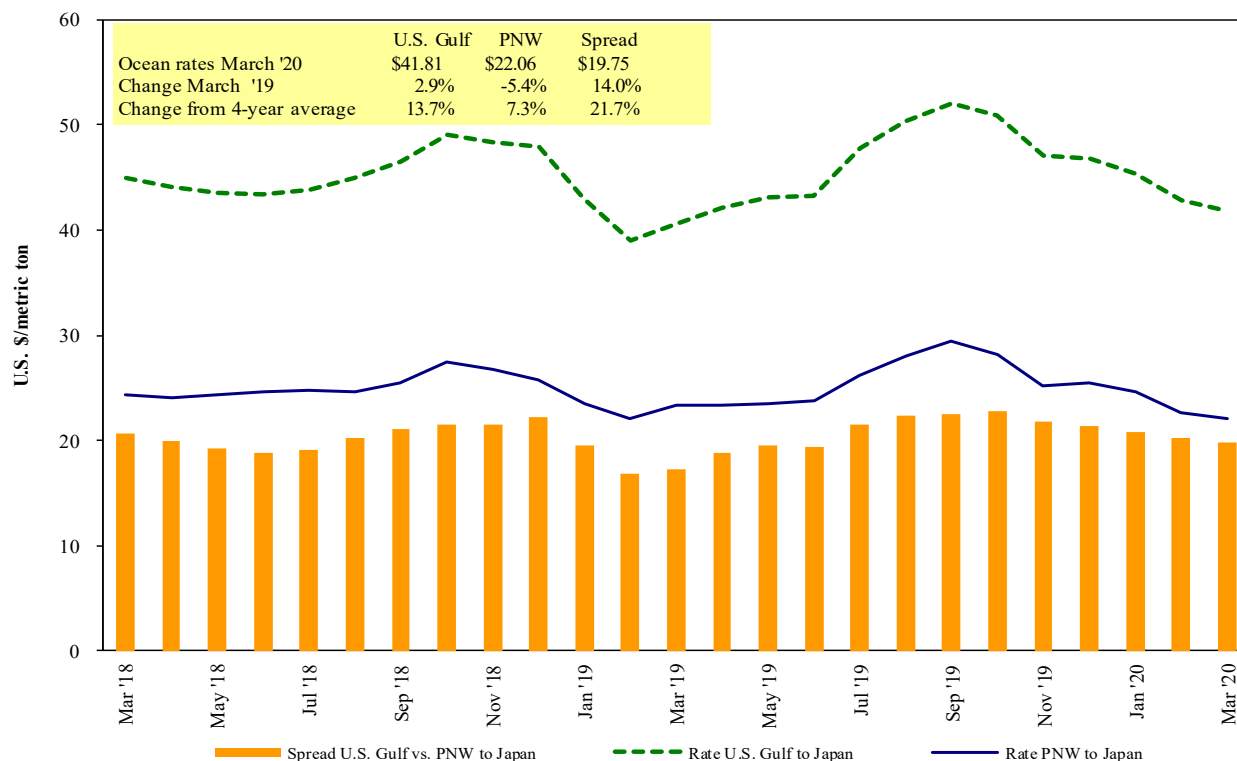
U.S. Gulf¹ vessel loading activity



¹U.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 04/11/2020

Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US\$/metric ton)
U.S. Gulf	Djibouti	Sorghum	Apr 17/27	45,730	105.75*
U.S. Gulf	China	Heavy grain	Jan 25/30	65,000	46.50
U.S. Gulf	Rotterdam	Heavy grain	Feb 5/11	55,000	19.50
PNW	Yemen	Wheat	Mar 26/Apr 6	35,000	51.84*
PNW	Taiwan	Wheat	Apr 27/May 11	50,700	29.40
PNW	China	Heavy grain	Jan 22/26	63,000	23.00
Brazil	China	Heavy grain	May 1/31	60,000	33.25 op 33.00
Brazil	China	Heavy grain	Apr 2/16	66,000	30.75
Brazil	China	Heavy grain	Mar 1/10	65,000	32.00
Brazil	China	Heavy grain	Feb 12/21	65,000	34.50
Brazil	China	Heavy grain	Feb 18/27	60,000	34.00

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

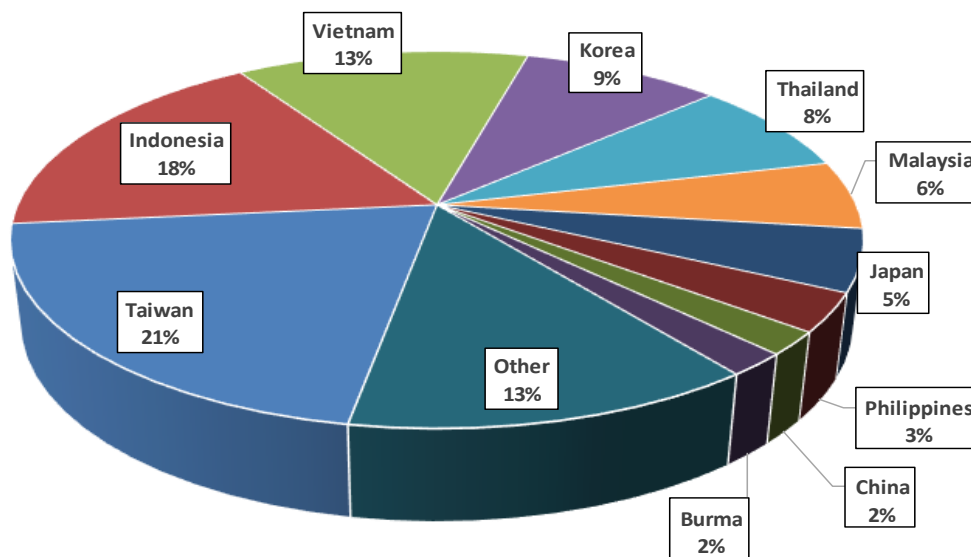
Note: Rates shown are per metric ton (2,204.62 lbs. = 1 metric ton), free on board (F.O.B), except where otherwise indicated;

op = option.

Source: Maritime Research, Inc.

In 2018, containers were used to transport 8 percent of total U.S. waterborne grain exports. Approximately 55 percent of U.S. waterborne grain exports in 2018 went to Asia, of which 13 percent were moved in containers. Approximately 94 percent of U.S. waterborne containerized grain exports were destined for Asia.

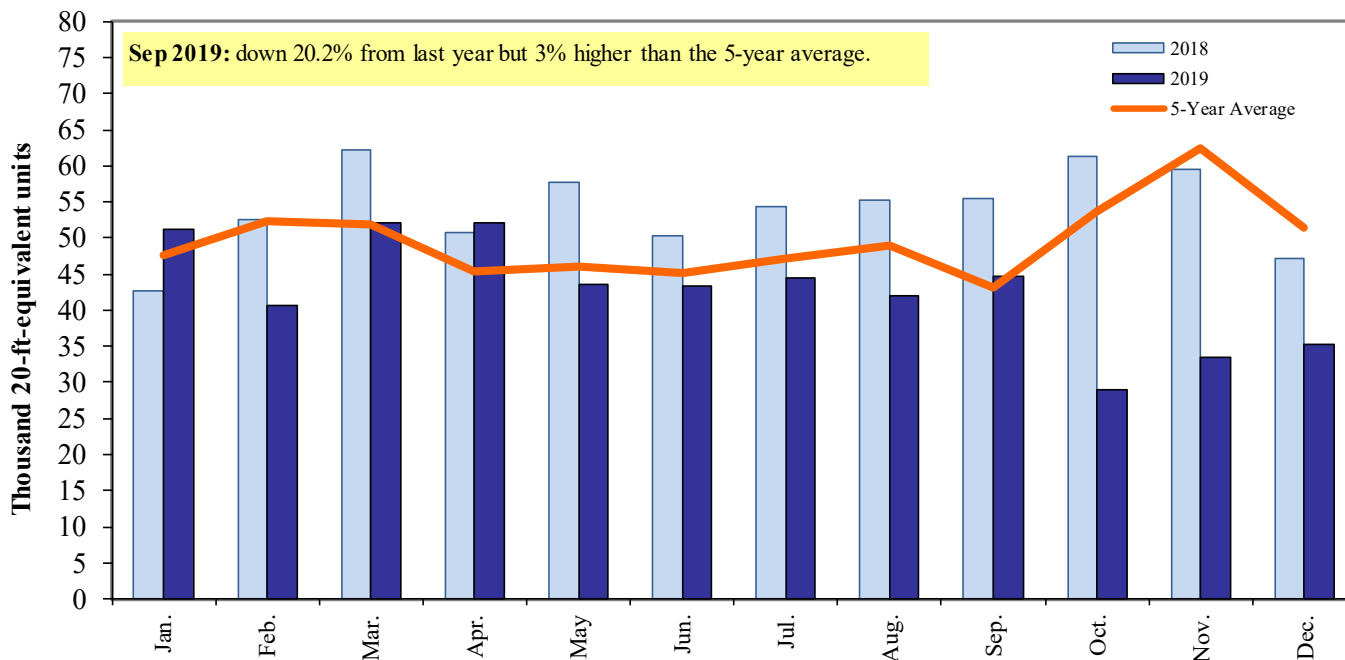
Figure 18
Top 10 destination markets for U.S. containerized grain exports, 2019



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, and 120810.

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, 1201, 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	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
Maria Williams	maria.williams@usda.gov	(202) 690 - 4430
Bernadette Winston	bernadette.winston@usda.gov	(202) 690 - 0487

Grain Transportation Indicators

Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
-------------------------------	--	------------------

Rail Transportation

Johnny Hill	johnny.hill@usda.gov	(202) 690 - 3295
Jesse Gastelle	jesse.gastelle@usda.gov	(202) 690 - 1144
Peter Caffarelli	petera.caffarelli@usda.gov	(202) 690 - 3244

Barge Transportation

April Taylor	april.taylor@usda.gov	(202) 720 - 7880
Kelly P. Nelson	kelly.nelson@usda.gov	(202) 690 - 0992
Bernadette Winston	bernadette.winston@usda.gov	(202) 690 - 0487

Truck Transportation

April Taylor	april.taylor@usda.gov	(202) 720 - 7880
--------------	--	------------------

Grain Exports

Johnny Hill	johnny.hill@usda.gov	(202) 690 - 3295
Kranti Mulik	kranti.mulik@usda.gov	(202) 756 - 2577

Ocean Transportation

Surajudeen (Deen) Olowolayemo (Freight rates and vessels)	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
April Taylor (Container movements)	april.taylor@usda.gov	(202) 720 - 7880

Editor

Maria Williams	maria.williams@usda.gov	(202) 690-4430
----------------	--	----------------

Subscription Information: Send relevant information to GTRContactUs@usda.gov for an electronic copy (*printed copies are also available upon request*).

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