



Grain Transportation Report

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

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WEEKLY HIGHLIGHTS

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Grain Inspections Up; Wheat and Soybeans Higher

For the week ending January 9, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions reached 2.1 million metric tons (mmt). Total grain inspections were up 6 percent from the previous week, down 22 percent from last year and 4 percent below the 3-year average. Inspections of wheat jumped 30 percent from week to week, primarily because of increased shipments to Asia and Latin America. Soybean inspections increased 9 percent from the past week, but inspections of corn decreased 16 percent. Pacific Northwest (PNW) grain inspections increased 6 percent from the previous week, and Mississippi Gulf inspections increased 16 percent.

TRB Held 99th Annual Meeting in Washington, DC

The Transportation Research Board (TRB) held its [99th annual meeting](#) on January 12-16, 2020, in Washington, DC. Presenters discussed a variety of topics, such as precision scheduled railroading (e.g., what it is, how it works, and its impacts); automation at port terminals; effects of accidents on inland waterway traffic; supply chains for ethanol and logs, and much more. Key takeaways from the conference will be covered in next week's feature article for the *Grain Transportation Report*.

Public Comments Sought on Draft of Lower Snake River Dams (LSRD) Stakeholder Engagement Report

The Lower Snake River Dams (LSRD) Stakeholder Engagement Report ([online draft here](#)) aims to represent all stakeholder perspectives on how removing the lower Snake River dams in southeast Washington will affect salmon, orcas, and agricultural and transportation interests. The current draft notes that, if the LSRD are breached, the Snake River will not be deep enough to sustain barge traffic. This situation would increase shipping costs and negatively affect the barging of dryland wheat and the overall grain economy. Written comments for this draft report will be accepted at [public workshops and online until January 24, 2020](#).

Temporary Restraining Order on Enforcement of California Assembly Bill No. 5 on Truckers

On January 13, 2020, U.S. District Court Judge Roger T. Benitez extended a [temporary restraining order](#), which prevents the enforcement of [Assembly Bill 5 \(AB-5\)](#). AB-5 prohibits companies from using independent contractors unless their work is "outside the usual course of the hiring entity's business." Trucking is an important mode in the movement of agricultural products, especially in California. According to [U.S. Department of Transportation data](#), California truckers hauled nearly 49 million tons of agricultural products (SCTG03, which includes soybeans, fruits, vegetables, nuts, and other agricultural products) and over 4 million tons of cereal grain (SCTG02, which includes corn, wheat, and other small grains) within the State in 2018. California also distributed almost 8 million tons of agricultural products and cereal grains to other States by truck in the same year.

Snapshots by Sector

Export Sales

For the week ending January 2, **unshipped balances** of wheat, corn, and soybeans totaled 21.9 mmt. This represented a 29-percent decrease in outstanding sales, compared to the same time last year. Net **corn export sales** reached 0.162 mmt, down 70 percent from the past week. Net **soybean export sales** were 0.356 mmt, down 8 percent from the previous week. Net weekly **wheat export sales** reached 0.081 mmt, down 74 percent from the previous week.

Rail

U.S. Class I railroads originated 19,615 **grain carloads** during the week ending January 4. This is a 26-percent increase from the previous week, 4 percent less than last year, and 5 percent lower than the 3-year average.

Average January shuttle **secondary railcar** bids/offers (per car) were \$506 below tariff for the week ending January 9. This is \$90 less than last week and \$198 lower than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending January 11, **barge grain movements** totaled 521,129 tons. This was a 1.4-percent decrease from the previous week and 7 percent less than the same period last year.

For the week ending January 11, 325 grain barges **moved down river**—28 fewer than the previous week. There were 807 grain barges **unloaded in New Orleans**, 17 percent more than the previous week.

Ocean

For the week ending January 9, 34 **oceangoing grain vessels** were loaded in the Gulf—unchanged from the same period last year. Within the next 10 days (starting January 10), 46 vessels were expected to be loaded—25.8 percent fewer than the same period last year.

As of January 9, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$45.00. This was 2 percent less than the previous week. The rate from PNW to Japan was \$24.25 per mt, 3 percent less than the previous week.

Fuel

For the week ending January 13, the U.S. average **diesel fuel price** decreased 1.5 cents from the previous week to \$3.064 per gallon, 8.8 cents above the same week last year.

Feature Article/Calendar

Ocean Freight Rates Fell During the Fourth Quarter 2019, Pushing Down the Yearly Average

Ocean freight rates for shipping bulk commodities, including grains, fell during the fourth quarter of 2019, pushing the yearly average rates to the lowest in 3 years. In 2019, the average ocean freight rate for shipping bulk grain from the U.S. Gulf to Japan was \$36.17 per metric ton (mt) (10 percent lower than in 2018). From the Pacific Northwest (PNW) to Japan, the average rate was \$19.86 (11 percent lower than in 2018) (fig. 1). The spread, which is the difference between the U.S. Gulf- and PNW-to-Japan rates, averaged \$16.31 per mt—20 percent less than in 2018. The cost of shipping grain from the U.S. Gulf to Europe was \$15.06 per mt, 20 percent less than in 2018.

Ocean Rates in 2019:

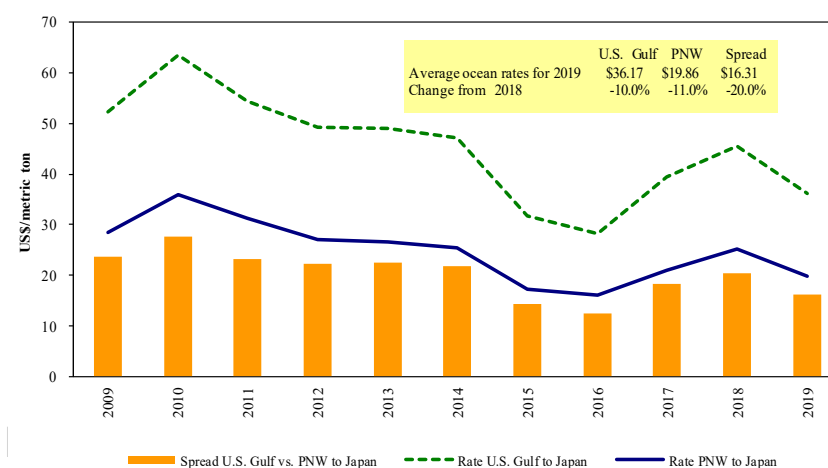
First Quarter – During the first quarter of 2019, ocean freight rates for shipping bulk commodities, including grains, remained low compared to the previous quarter and the same period in 2018. However, the rates were higher than the 4-year average (see April 25, 2019, [Grain Transportation Report \(GTR\)](#)). Ocean freight rates declined in the first quarter of 2019 when the Baltic

Panamax Index¹ fell to 574 points. Likely responding to the cyclical slowdown in global trade around the New Year holidays, the decline may also have been triggered by a coal-trade slowdown in the face of high coal inventories at Chinese ports (Drewry Maritime Research, Inc. (Drewry)). Ocean freight rates continued to fall in February as the collapse of Vale’s Dam in Brazil and consequent mine closures disrupted the supply of iron ore (see April 25, 2019 [GTR](#)). Ocean freight rates increased slightly in March, as the market was still feeling the effects of low iron ore supply from Australia and Brazil. In addition to mine closures in Brazil, a severe cyclone halted operations in some major iron-ore-exporting ports in Australia.

Second Quarter – Ocean freight rates for shipping bulk grains during the second quarter of 2019 were below the same period a year ago. Overall, the rates were above the 4-year average when compared to the previous quarter (see July 25, 2019 [GTR](#)). Although the rates were lower than 2018, they were higher than each of the 3 years before 2018, and they exceeded the 4-year average. Despite being slightly lower than the same period a year ago, the Gulf-to-Japan and PNW-to-Japan rates increased in the second quarter from the first quarter. The increase was in response to a continued strong trade of coal and iron ore in the second quarter, resulting from higher electricity consumption in Asia during the peak summer season. The increasing non-coking coal trade in Asia boosted the demand for Panamax vessels. In China, strong steel production and declining iron ore inventories boosted iron ore imports. In addition, China’s rising importation of soybeans from Brazil lengthened hauls, which benefitted dry bulk vessel operators.

Third Quarter – During the third quarter of 2019, ocean freight rates for moving bulk commodities, including grain, increased compared to the previous quarter, a year earlier, and the 4-year average. The increase was partly due to strong trading of bulk commodities, especially firmness in India’s coal imports and surging iron ore exports from Brazil during the quarter (see October 31, 2019 [GTR](#)). In August, bulk ocean freight rates continued to increase as

Figure 1. Grain Vessel Rates, U.S. to Japan



Note: PNW = Pacific Northwest.

Source: O’Neil Commodity Consulting.

¹ The Baltic Panamax Index tracks the cost of shipping bulk items in a Panamax vessel.

iron ore exports from Brazil began to return to normal, following the disruption in coal mines caused by collapsed dams earlier in the year.

According to Drewry, India imported 20 percent more coal during the first 5 months of 2019 than during the same period in 2018. India’s coal imports were fueled by infrastructure development, which generated additional demand for steel, increasing imports of coking coal. In September, ocean freight rates continued to surge as India’s appetite for imported coal remained strong because of sluggish domestic coal production. In addition, the approaching winter triggered coal-restocking activities in Europe and Far East. India also produced more cement, which requires coal to produce.

Ocean freight rates for grain routes during fourth quarter 2019							
Route	Oct.	Nov.	Dec.	4 th quarter 2019	Change from		
					3 rd qtr. '19	4 th qtr. '18	4-yr. avg.
	--\$/mt--			--\$/mt--	Percent		
U.S. Gulf to Japan	50.85	47.08	46.83	48.25	-4	0	25
PNW to Japan	28.10	25.25	25.50	26.28	-6	-2	23
Spread	22.75	21.83	21.33	21.97	-1	1	27
U.S. Gulf to Europe	19.40	18.67	19.00	19.02	-6	-9	13

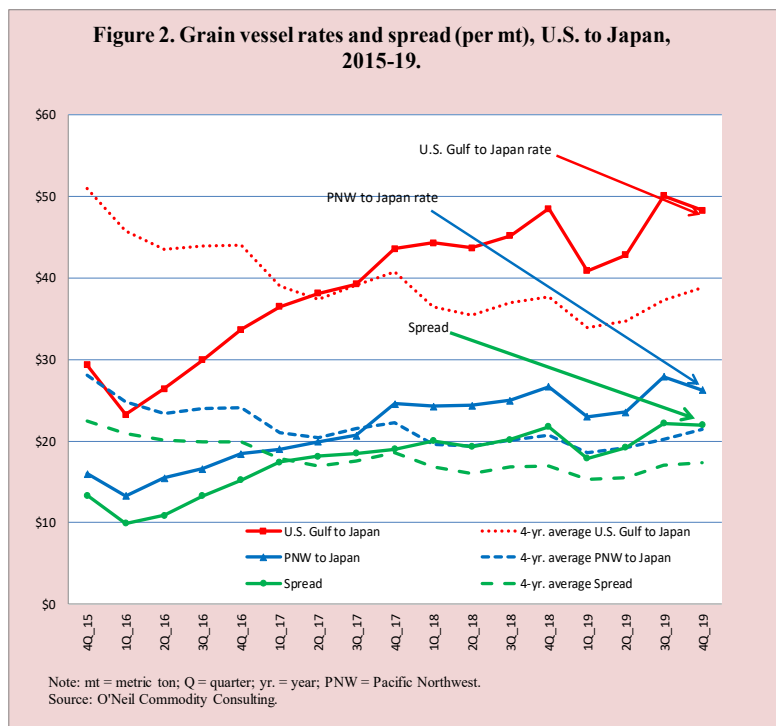
Note: qtr. = quarter; avg = average; mt = metric ton; yr = year; PNW = Pacific Northwest.
Source: O'Neil Commodity Consulting.

Fourth Quarter – Although higher than the 4-year average, average ocean freight rates fell from the previous quarter and from the same period a year earlier (see table below). Rates declined in November and remained relatively stable in December. In general, iron ore and coal trading was weak in the fourth quarter. Weak trading reduced demand for Capesizes and Panamax vessels and lowered rates for drybulk vessels. A softer demand for coal imports by the European Union had a similar dampening effect on rates. In the fourth quarter, too, a slowdown in India’s economic growth produced a chain of events that slowed the demand for power, which reduced the demand for coal imports and ultimately reduced ocean freight rates. In an effort by the Chinese Government to curb coal imports, tight custom clearance for coal persists at several Chinese ports. According to Drewry, China was cautious about restocking iron ore inventories amid uncertainty over a trade deal with the United States.

Current Market Analysis and Outlook

As of January 9, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$45.00—2 percent less than the previous week and unchanged from the same period a year ago. The rate from the Pacific Northwest (PNW) to Japan was \$24.25 per mt—3 percent less than the previous week and 1

percent more than the same period last year. Typically, rates either drop or change very little in December and January because of slow trade activity during the holidays. However, future rate changes depend on many factors, including the recently enforced International Maritime Organization regulations on low sulfur emission by oceangoing vessels and other trade issues. surajudeen.olowolayemo@ams.usda.gov



Grain Transportation Indicators

Table 1

Grain transport cost indicators¹

For the week ending	Truck	Rail	Barge	Ocean	
		Unit train	Shuttle	Gulf	Pacific
01/15/20	206	n/a	204	201	172
01/08/20	207	n/a	208	205	177

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)

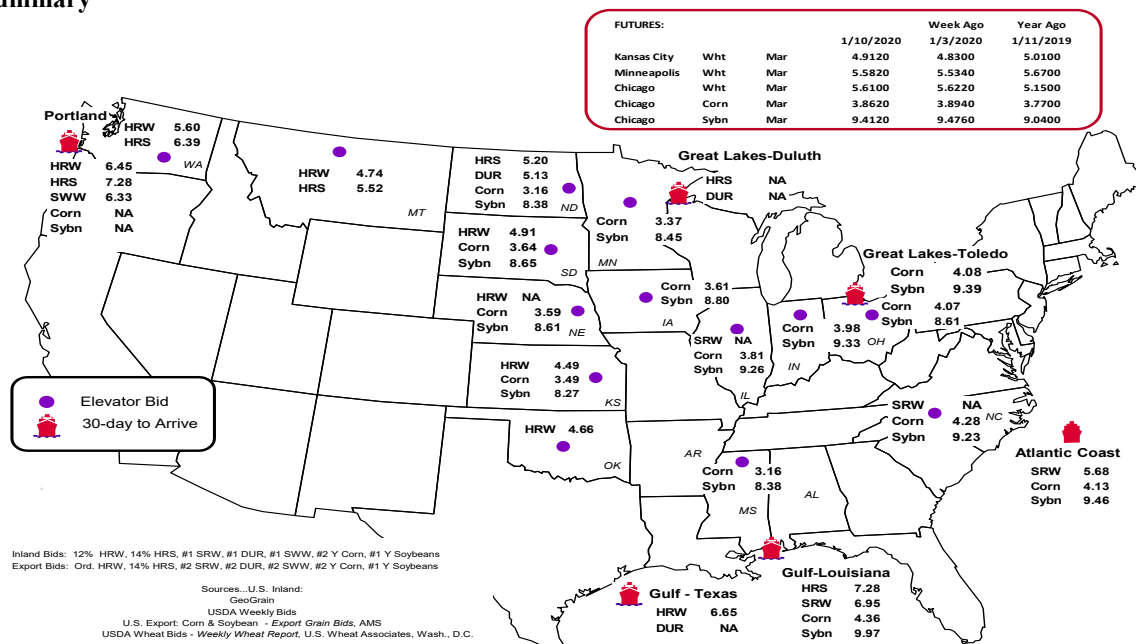
Commodity	Origin-destination	1/10/2020	1/3/2020
Corn	IL-Gulf	-0.55	-0.55
Corn	NE-Gulf	-0.77	-0.78
Soybean	IA-Gulf	-1.17	-1.17
HRW	KS-Gulf	-2.16	-2.31
HRS	ND-Portland	-2.08	-2.18

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			
1/08/2020 ^p	767	538	2,988	285	4,578	1/4/2020	2,662
1/01/2020 ^r	117	768	3,822	256	4,963	12/28/2019	2,307
2020 YTD ^r	884	1,306	6,810	541	9,541	2020 YTD	2,662
2019 YTD ^r	566	2,142	10,047	317	13,072	2019 YTD	3,608
2020 YTD as % of 2019 YTD	156	61	68	171	73	% change YTD	74
Last 4 weeks as % of 2019 ²	209	71	75	61	78	Last 4wks. % 2018	127
Last 4 weeks as % of 4-year avg. ²	109	48	68	45	66	Last 4wks. % 4 yr.	141
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.

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

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

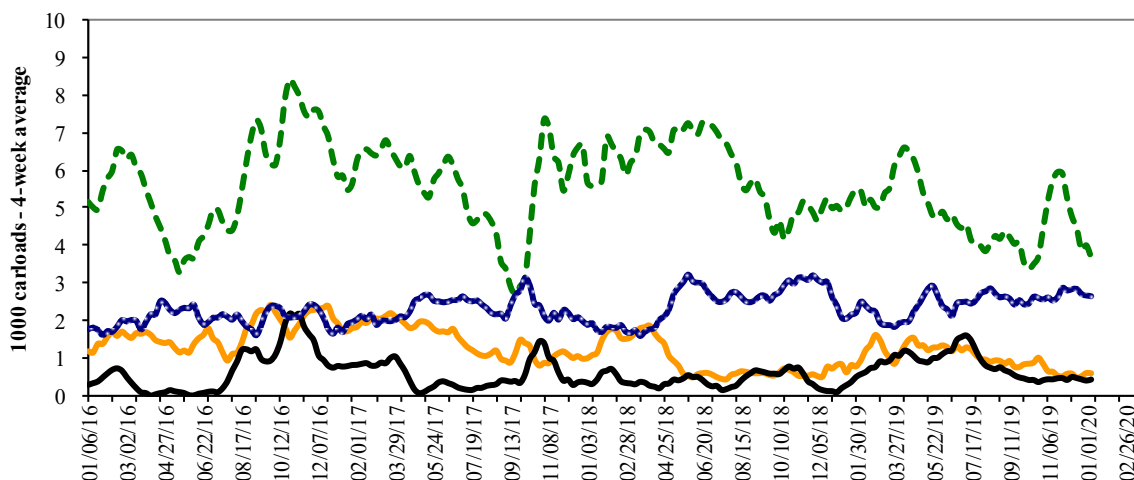
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available; wks. = weeks; avg. = average.

Source: USDA, Agricultural Marketing Service.

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

Figure 2

Rail deliveries to port



--- Pacific Northwest: 4 weeks ending 1/08—down 25% from same period last year; down 32% from the 4-year average.
--- Texas Gulf: 4 weeks ending 1/08—down 29% from same period last year; down 52% from the 4-year average.
--- Miss. River: 4 weeks ending 1/08—up 109% from same period last year; up 9% from the 4-year average.
--- Cross-border: 4 weeks ending 1/04—up 27% from same period last year; up 41% from the 4-year average.

Source: USDA, Agricultural Marketing Service.

Table 4

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

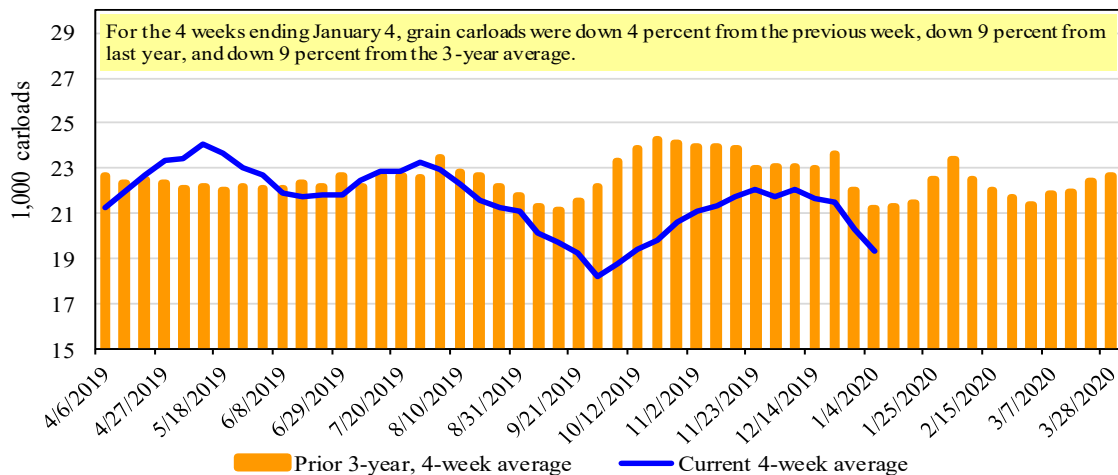
For the week ending: 1/4/2020	East		West			U.S. total	Canada	
	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,562	2,648	10,244	1,159	4,002	19,615	3,586	3,143
This week last year	1,828	2,818	10,438	777	4,635	20,496	3,471	3,824
2020 YTD	1,562	2,648	10,244	1,159	4,002	19,615	3,586	3,143
2019 YTD	1,828	2,818	10,438	777	4,635	20,496	3,471	3,824
2020 YTD as % of 2019 YTD	85	94	98	149	86	96	103	82
Last 4 weeks as % of 2019*	92	83	91	109	92	91	100	93
Last 4 weeks as % of 3-yr. avg.**	83	88	94	121	85	91	110	95
Total 2019	91,611	137,180	568,369	58,527	260,269	1,115,956	212,674	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.

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: 1/9/2020		Delivery period							
		Jan-20	Jan-19	Feb-20	Feb-19	Mar-20	Mar-19	Apr-20	Apr-19
BNSF ³	COT grain units	no bids	no bids	0	0	0	0	no bids	0
	COT grain single-car	72	60	18	4	0	4	0	no bids
UP ⁴	GCAS/Region 1	no offer	no offer	no offer	no bid	no offer	no bid	n/a	n/a
	GCAS/Region 2	no offer	no offer	no bid	no bid	no bid	no bid	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 = Certificate of Transportation; north grain and south grain bids were combined effective the week ending 6/24/06.

⁴UP - GCAS = Grain Car Allocation System.

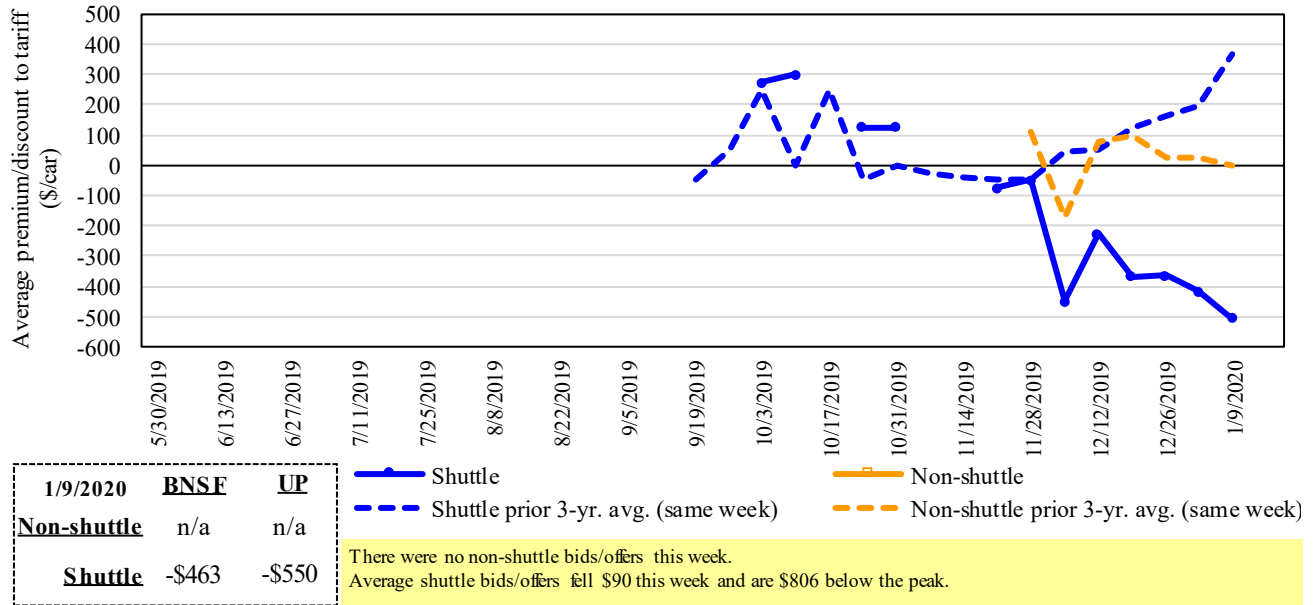
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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

Source: USDA, Agricultural Marketing Service.

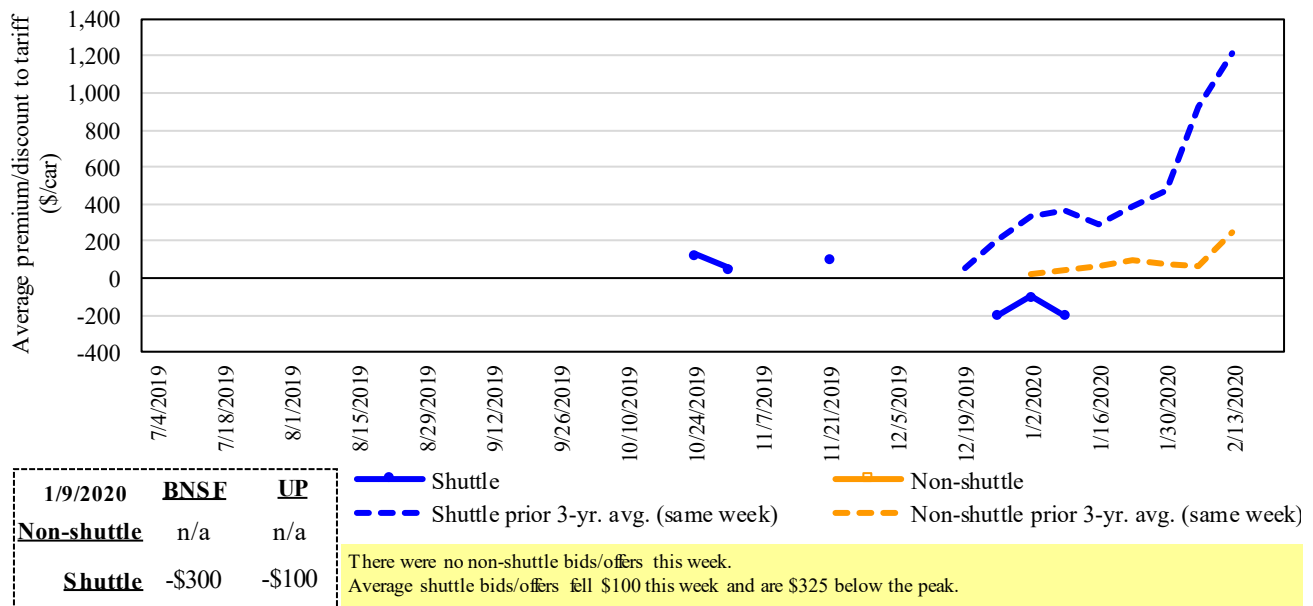
The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4
Bids/offers for railcars to be delivered in January 2020, secondary market



Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year.
 Source: USDA, Agricultural Marketing Service.

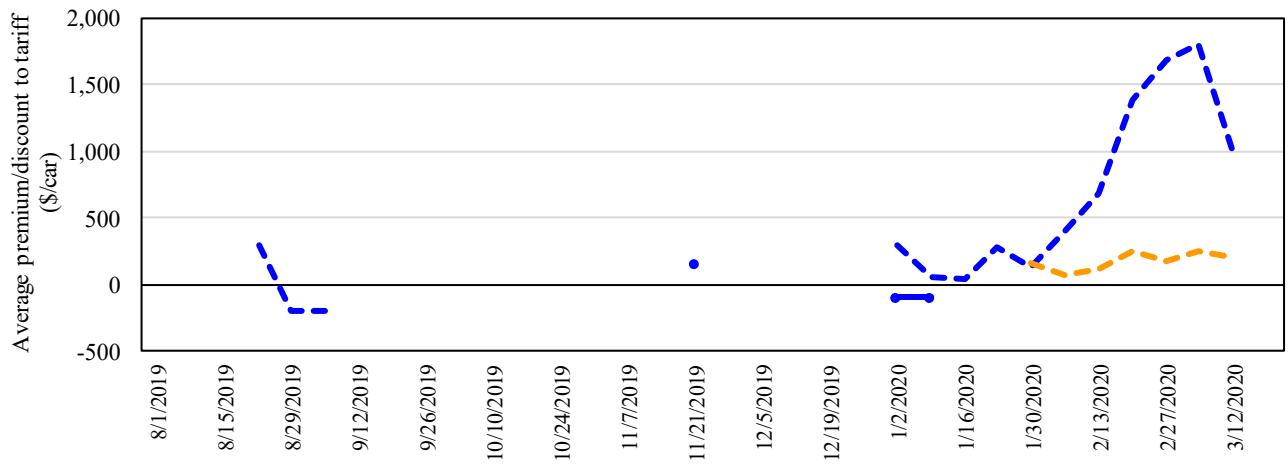
Figure 5
Bids/offers for railcars to be delivered in February 2020, secondary market



Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year.
 Source: USDA, Agricultural Marketing Service.

Figure 6

Bids/offers for railcars to be delivered in March 2020, secondary market



1/9/2020	BNSF	UP	Shuttle	Non-shuttle
Non-shuttle	n/a	n/a	-	-
Shuttle	n/a	-\$100	-	-

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers are unchanged this week and are \$250 below the peak.

Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year.
Source: USDA, Agricultural Marketing Service.

Table 6

Weekly secondary railcar market (\$/car)¹

For the week ending:		Delivery period					
		Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
Non-shuttle	1/9/2020						
	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 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	
Shuttle	BNSF-GF	(463)	(300)	n/a	n/a	n/a	n/a
	Change from last week	(5)	n/a	n/a	n/a	n/a	n/a
	Change from same week 2019	(358)	(508)	n/a	n/a	n/a	n/a
	UP-Pool	(550)	(100)	(100)	n/a	n/a	n/a
	Change from last week	(175)	0	0	n/a	n/a	n/a
	Change from same week 2019	(38)	n/a	n/a	n/a	n/a	n/a

¹ Average premium/discount to tariff, \$/car-last week.

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

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 and—together with **fuel surcharges** and any **auction and secondary rail** values—constitute 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. High auction and secondary rail values, during times of high rail demand or short supply, can exceed the cost of the tariff rate plus fuel surcharge.

Table 7

Tariff rail rates for unit and shuttle train shipments¹

January 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	\$101	\$40.56	\$1.10	-1
	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	\$178	\$46.70	\$1.27	-1
	Sioux Falls, SD	Galveston-Houston, TX	\$6,976	\$0	\$69.28	\$1.89	1
	Northwest KS	Galveston-Houston, TX	\$4,801	\$195	\$49.61	\$1.35	-1
	Amarillo, TX	Los Angeles, CA	\$5,121	\$271	\$53.55	\$1.46	-1
Corn	Champaign-Urbana, IL	New Orleans, LA	\$3,900	\$201	\$40.73	\$1.03	-4
	Toledo, OH	Raleigh, NC	\$6,816	\$0	\$67.69	\$1.72	4
	Des Moines, IA	Davenport, IA	\$2,415	\$43	\$24.41	\$0.62	6
	Indianapolis, IN	Atlanta, GA	\$5,818	\$0	\$57.78	\$1.47	3
	Indianapolis, IN	Knoxville, TN	\$4,874	\$0	\$48.40	\$1.23	4
	Des Moines, IA	Little Rock, AR	\$3,800	\$125	\$38.98	\$0.99	-2
	Des Moines, IA	Los Angeles, CA	\$5,680	\$365	\$60.03	\$1.52	-2
Soybeans	Minneapolis, MN	New Orleans, LA	\$3,631	\$194	\$37.98	\$1.03	-13
	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	\$201	\$48.13	\$1.31	-3
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
	Northwest KS	Portland, OR	\$6,012	\$320	\$62.88	\$1.71	0
	Minneapolis, MN	Portland, OR	\$5,180	\$0	\$51.44	\$1.31	0
Corn	Sioux Falls, SD	Tacoma, WA	\$5,140	\$0	\$51.04	\$1.30	0
	Champaign-Urbana, IL	New Orleans, LA	\$3,820	\$201	\$39.93	\$1.01	-1
	Lincoln, NE	Galveston-Houston, TX	\$3,880	\$0	\$38.53	\$0.98	0
	Des Moines, IA	Amarillo, TX	\$4,220	\$157	\$43.47	\$1.10	3
	Minneapolis, MN	Tacoma, WA	\$5,180	\$0	\$51.44	\$1.31	0
	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	\$232	\$50.71	\$1.38	1
Soybeans	Toledo, OH	Huntsville, AL	\$4,805	\$0	\$47.72	\$1.30	4
	Grand Island, NE	Portland, OR	\$5,860	\$327	\$61.44	\$1.67	1

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	Origin state	Destination region	Tariff rate/car ¹	Fuel		Percent change ⁴	
				surchage per car ²	Tariff plus surcharge per: metric ton ³ bushel ³		
Wheat	MT	Chihuahua, CI	\$7,509	\$0	\$76.72	\$2.09	3
	OK	Cuautitlan, EM	\$6,775	\$139	\$70.65	\$1.92	0
	KS	Guadalajara, JA	\$7,534	\$633	\$83.44	\$2.27	5
	TX	Salinas Victoria, NL	\$4,329	\$85	\$45.10	\$1.23	0
Corn	IA	Guadalajara, JA	\$8,902	\$542	\$96.49	\$2.45	6
	SD	Celaya, GJ	\$8,140	\$0	\$83.17	\$2.11	3
	NE	Queretaro, QA	\$8,278	\$291	\$87.56	\$2.22	0
	SD	Salinas Victoria, NL	\$6,905	\$0	\$70.55	\$1.79	0
	MO	Tlalnepantla, EM	\$7,643	\$284	\$80.99	\$2.06	0
	SD	Torreón, CU	\$7,690	\$0	\$78.57	\$1.99	3
Soybeans	MO	Bojay (Tula), HG	\$8,547	\$506	\$92.49	\$2.51	5
	NE	Guadalajara, JA	\$9,172	\$529	\$99.11	\$2.69	5
	IA	El Castillo, JA	\$9,490	\$0	\$96.97	\$2.64	4
	KS	Torreón, CU	\$7,964	\$366	\$85.10	\$2.31	4
Sorghum	NE	Celaya, GJ	\$7,772	\$479	\$84.31	\$2.14	5
	KS	Queretaro, QA	\$8,108	\$174	\$84.62	\$2.15	1
	NE	Salinas Victoria, NL	\$6,713	\$140	\$70.01	\$1.78	1
	NE	Torreón, CU	\$7,157	\$339	\$76.59	\$1.94	4

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.

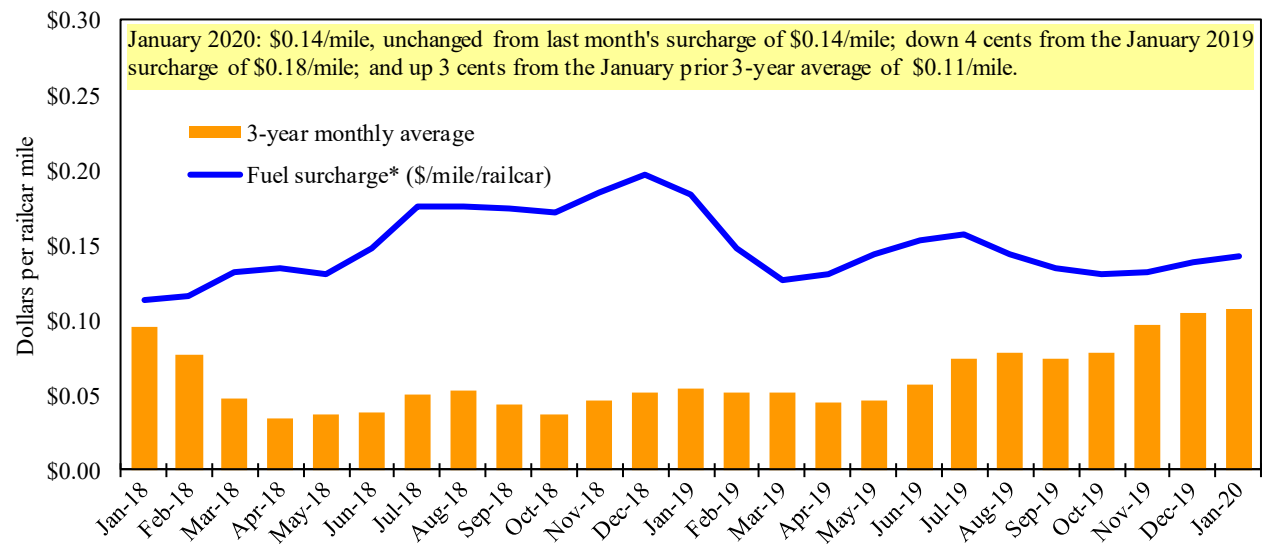
²Fuel surcharge adjusted to reflect the change in Ferrocarril Mexicano, S.A. de C.V railroad fuel surcharge policy as of 10/01/2009.

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.

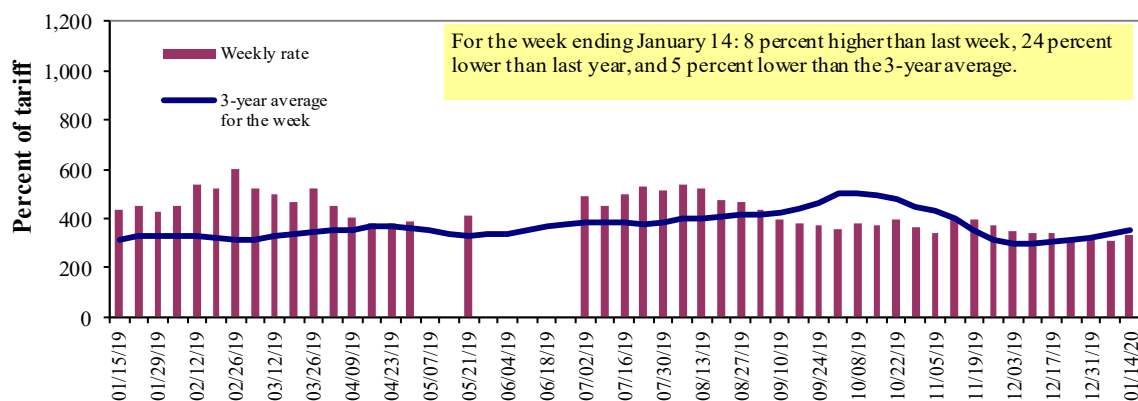
** CSX strike price changed from \$2.00/gal. to \$3.75/gal. starting January 1, 2015.

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

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
Rate ¹	1/14/2020	-	-	334	228	259	259	214
	1/7/2020	-	-	310	219	237	237	212
\$/ton	1/14/2020	-	-	15.50	9.10	12.15	10.46	6.72
	1/7/2020	-	-	14.38	8.74	11.12	9.57	6.66
Current week % change from the same week:								
	Last year	-	-	-24	-38	-37	-37	-40
	3-year avg. ²	-	-	-5	-12	-12	-12	-3
Rate ¹	February	-	-	342	234	248	248	219
	April	386	362	346	241	245	245	217

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

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

Map Credit: USDA, Agricultural Marketing Service

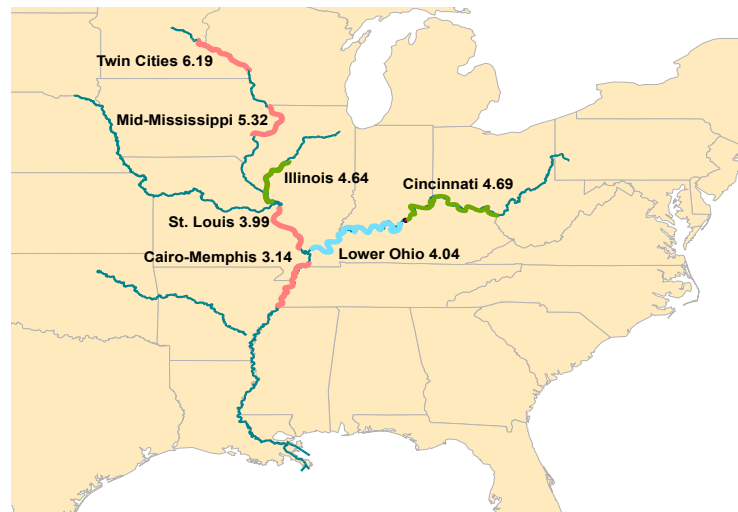
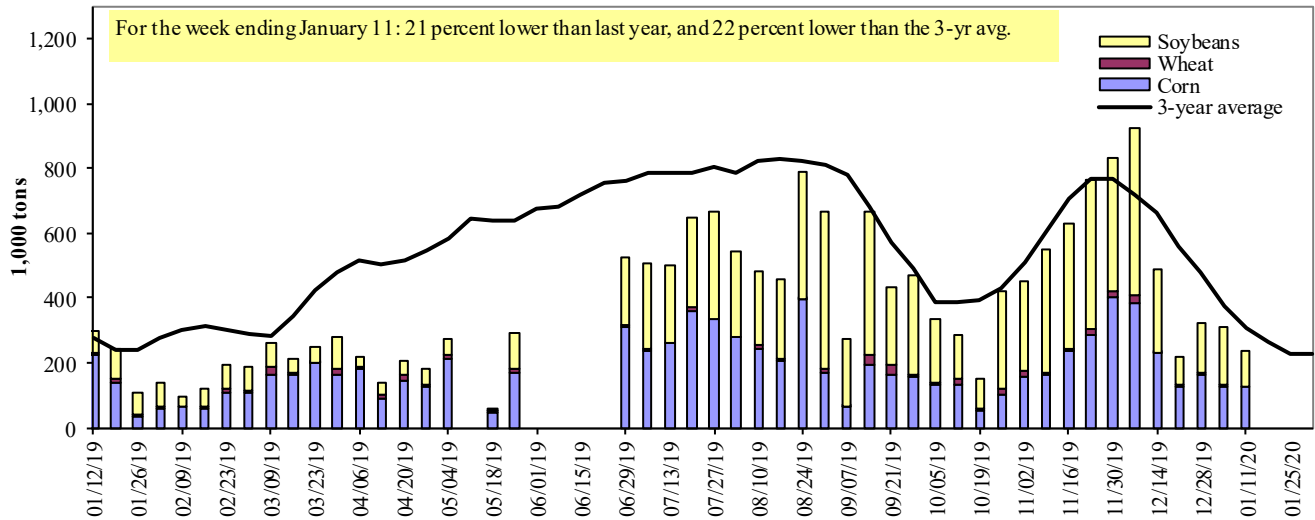


Figure 10

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 01/11/2020	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	0	0	0	0	0
Winfield, MO (L25)	0	0	0	0	0
Alton, IL (L26)	122	0	119	0	241
Granite City, IL (L27)	125	0	114	0	239
Illinois River (LAGRANGE)	63	3	110	0	176
Ohio River (OLMSTED)	120	7	118	0	246
Arkansas River (L1)	0	7	29	0	36
Weekly total - 2020	245	14	262	0	521
Weekly total - 2019	309	32	217	0	558
2020 YTD ¹	393	51	605	0	1,050
2019 YTD ¹	491	79	359	0	929
2020 as % of 2019 YTD	80	65	169	NA	113
Last 4 weeks as % of 2019 ²	62	83	147	360	95
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.

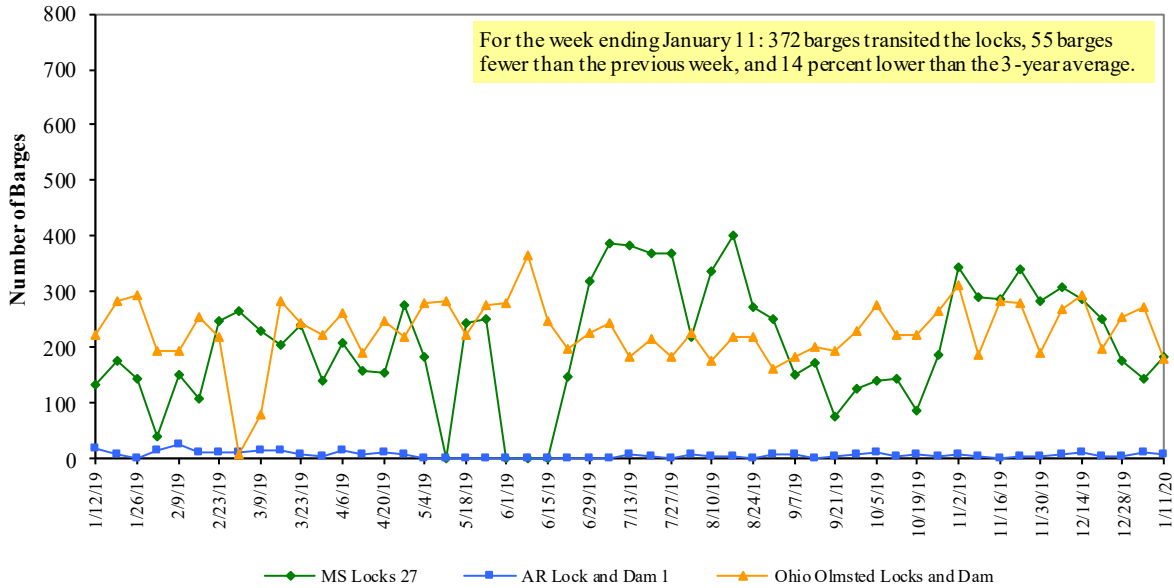
² As a percent of same period in 2019.

Note: 1. Total may not add exactly, due to rounding.

2. Starting from 11/24/2018, weekly movement through Ohio 52 is replaced by Olmsted.

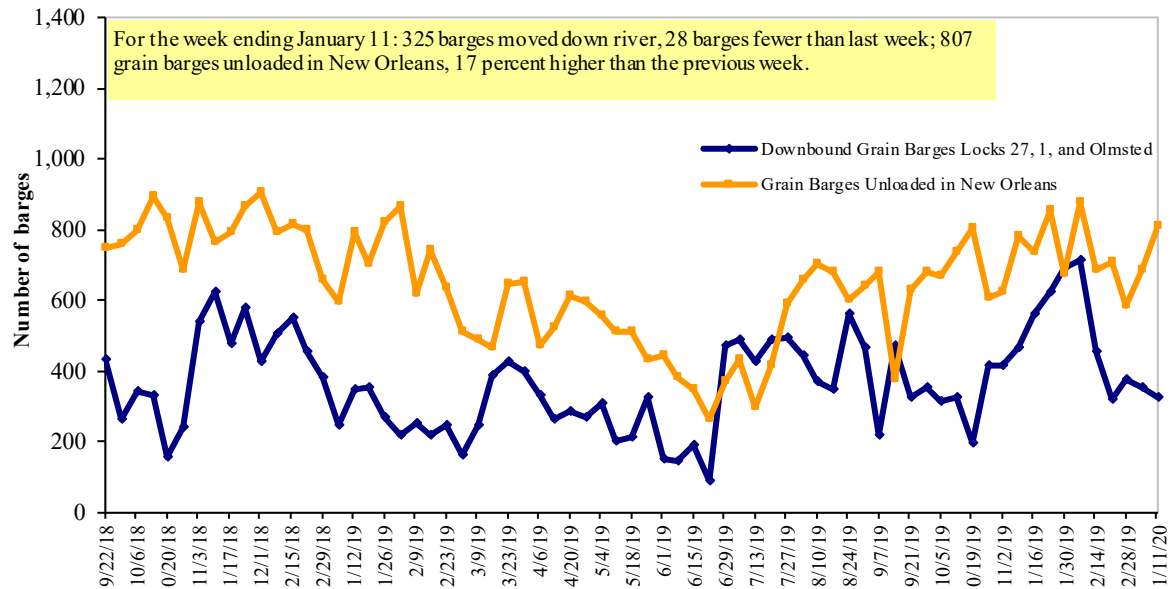
Source: U.S. Army Corps of Engineers.

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



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 1/13/2020 (U.S. \$/gallon)

Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	3.111	-0.009	0.062
	New England	3.131	0.004	-0.077
	Central Atlantic	3.291	-0.003	0.074
	Lower Atlantic	2.984	-0.016	0.081
II	Midwest	2.965	-0.012	0.142
III	Gulf Coast	2.810	-0.018	0.022
IV	Rocky Mountain	3.065	-0.035	0.078
V	West Coast	3.593	-0.023	0.122
	West Coast less California	3.241	-0.023	0.111
	California	3.872	-0.023	0.130
Total	U.S.	3.064	-0.015	0.088

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

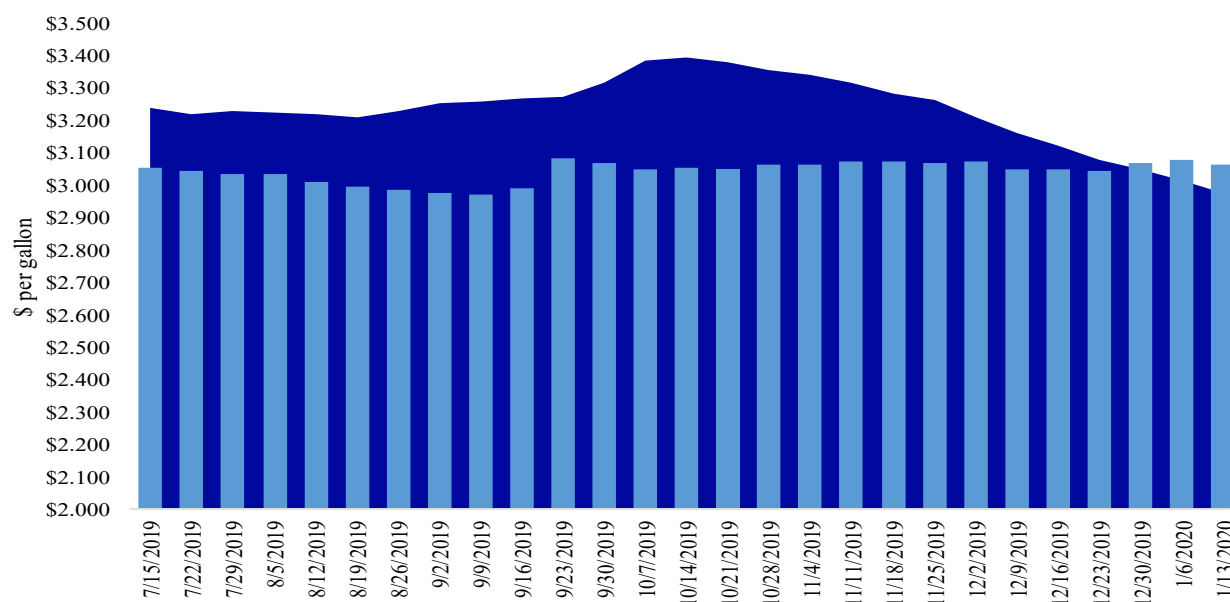
Source: U.S. Department of Energy, Energy Information Administration.

Figure 13

Weekly diesel fuel prices, U.S. average

For the week ending January 13, the U.S. average diesel fuel price decreased 1.5 cents from the previous week to \$3.064 per gallon, 8.8 cents above the same week last year.

■ Last year ■ Current year
\$2.976 \$3.064



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									
1/2/2020	1,440	526	1,205	1,076	187	4,434	9,627	7,808	21,868
This week year ago	1,808	886	1,511	1,167	90	5,463	13,021	12,517	31,001
Cumulative exports-marketing year²									
2019/20 YTD	5,505	1,575	4,092	2,706	623	14,501	8,890	21,964	45,354
2018/19 YTD	3,771	1,391	3,993	2,962	330	12,446	19,267	17,852	49,565
YTD 2019/20 as % of 2018/19	146	113	102	91	189	117	46	123	92
Last 4 wks as % of same period 2018/19	81	62	88	93	193	84	75	70	75
2018/19 Total	8,591	3,204	6,776	5,164	479	24,214	48,924	46,189	119,327
2017/18 Total	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 1/2/2020	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 -			
Mexico	8,945	11,150	(20)	14,659
Japan	2,862	6,366	(55)	11,955
Korea	11	2,300	(100)	4,977
Colombia	1,490	2,151	(31)	4,692
Peru	15	1,469	(99)	2,808
Top 5 Importers	13,323	23,436	(43)	39,091
Total U.S. corn export sales	18,517	32,287	(43)	54,024
% of projected exports	39%	61%		
Change from prior week ²	162	460		
Top 5 importers' share of U.S. corn export sales	72%	73%		72%
USDA forecast December 2019	47,074	52,545	(10)	
Corn use for ethanol USDA forecast, January 2020	136,525	136,551	(0)	

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

² Cumulative exports (shipped) + outstanding sales (unshipped), FAS weekly export sales report, or export sales query. Total commitments change (net sales) from prior week could include revisions from previous week's outstanding sales or accumulated sales.

³ FAS marketing year ranking reports (carryover plus accumulated export; yr. = year; avg. = average).

Note: (n) indicates negative number; mt = metric ton

Source: USDA, Foreign Agricultural Service.

Table 14

Top 5 importers¹ of U.S. soybeans

For the week ending 1/2/2020	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	11,172	3,484	221	25,733
Mexico	2,850	4,100	(30)	4,271
Indonesia	956	1,163	(18)	2,386
Japan	1,209	1,377	(12)	2,243
Egypt	1,238	1,227	1	1,983
Top 5 importers	17,425	11,350	54	36,616
Total U.S. soybean export sales	29,771	30,369	(2)	53,746
% of projected exports	62%	64%		
change from prior week ²	356	(612)		
Top 5 importers' share of U.S. soybean export sales	59%	37%		68%
USDA forecast, January 2020	48,365	47,629	102	

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

² Cumulative exports (shipped) + outstanding sales (unshipped), FAS weekly export sales report, or export sales query. The total commitments change (net sales) from prior week could include revisions from previous week's outstanding sales and/or accumulated sales.

³ FAS Marketing year ranking reports (carryover plus accumulated export); yr. = year; avg. = average.

Note: (n) indicates negative number; mt = metric ton

Source: USDA, Foreign Agricultural Service.

Table 15

Top 10 importers¹ of all U.S. wheat

For the week ending 1/2/2020	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	2,422	2,415	0	3,047
Mexico	2,756	2,213	25	3,034
Japan	1,921	2,166	(11)	2,695
Nigeria	1,083	862	26	1,564
Indonesia	670	692	(3)	1,381
Korea	1,011	1,134	(11)	1,355
Taiwan	979	812	20	1,164
Egypt	101	391	(74)	821
Thailand	630	790	(20)	747
Iraq	262	414	(37)	574
Top 10 importers	11,834	11,888	(0)	16,382
Total U.S. wheat export sales	18,934	17,909	6	24,388
% of projected exports	71%	70%		
change from prior week ²	81	131		
Top 10 importers' share of U.S. wheat export sales	63%	66%		67%
USDA forecast, January 2020	26,567	25,504	4	

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

² Cumulative exports (shipped) + outstanding sales (unshipped), FAS weekly export sales report, or export sales query. The total commitments change (net sales) from prior week could include revisions from the previous week's outstanding and/or accumulated sales.

³ FAS marketing year final reports (carryover plus accumulated export); yr. = year; avg. = average.

(n) indicates negative number; mt = metric ton.

Table 16

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

Port regions	For the week ending 01/09/20	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	258	158	163	416	359	116	109	133	13,961
Corn	0	0	n/a	1	324	0	2	3	7,047
Soybeans	138	215	64	353	212	166	261	61	11,969
Total	396	373	106	770	895	86	76	66	32,977
Mississippi Gulf									
Wheat	100	66	151	165	75	221	93	89	4,448
Corn	368	390	94	758	631	120	75	78	20,763
Soybeans	923	744	124	1,667	1,005	166	155	114	31,398
Total	1,390	1,200	116	2,590	1,711	151	119	100	56,609
Texas Gulf									
Wheat	110	132	83	242	105	230	117	100	6,009
Corn	0	22	0	22	0	n/a	n/a	166	640
Soybeans	0	0	n/a	0	0	n/a	n/a	0	2
Total	110	154	71	263	105	251	134	104	6,650
Interior									
Wheat	32	27	120	58	62	94	167	128	1,987
Corn	84	130	65	213	211	101	114	110	7,857
Soybeans	123	84	146	208	136	153	145	144	7,043
Total	239	241	99	480	410	117	132	125	16,887
Great Lakes									
Wheat	0	0	n/a	0	11	0	238	221	1,339
Corn	0	0	n/a	0	0	n/a	n/a	n/a	11
Soybeans	0	0	n/a	0	8	0	71	54	493
Total	0	0	n/a	0	19	0	161	135	1,844
Atlantic									
Wheat	0	0	n/a	0	0	n/a	n/a	0	37
Corn	0	0	n/a	0	7	0	0	0	99
Soybeans	12	49	24	61	46	132	94	42	1,353
Total	12	49	24	61	53	115	84	40	1,489
U.S. total from ports*									
Wheat	499	383	130	882	612	144	114	120	27,781
Corn	452	541	84	994	1,174	85	59	63	36,417
Soybeans	1,196	1,092	109	2,288	1,408	163	159	101	52,258
Total	2,147	2,017	106	4,164	3,194	130	108	92	116,457

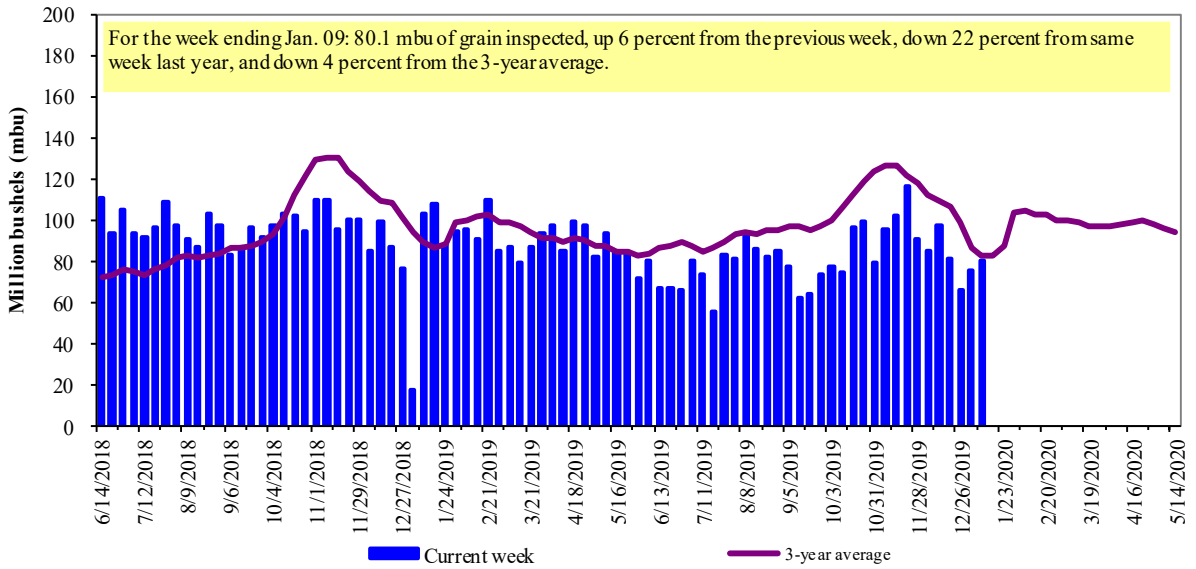
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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 53 percent of the U.S. export grain shipments departed through the U.S. Gulf region in 2018.

Figure 14

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

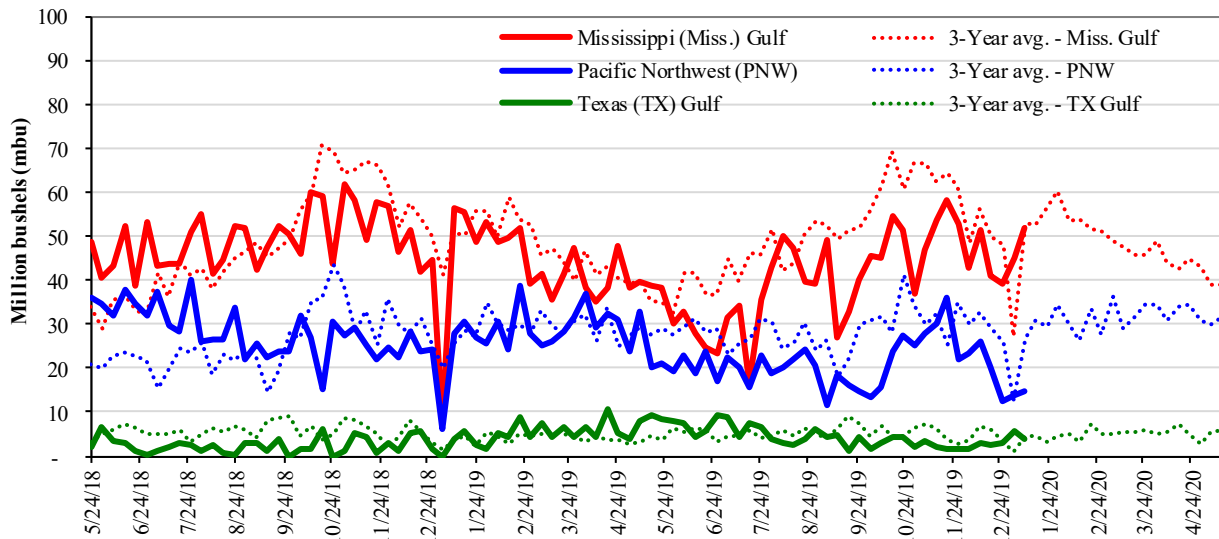


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

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



Week ending 01/09/20 inspections (mbu):	Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
MS Gulf: 52.1	Last wk:	up 15	down 29	up 10	up 6
PNW: 14.6	Last Year (same wk):	down 8	up 4	down 7	down 48
TX Gulf: 4.0	3-yr avg. (4-wk. mov. Avg):	up 17	up 12	up 17	down 38

Source: USDA, Federal Grain Inspection Service.

Ocean Transportation

Table 17

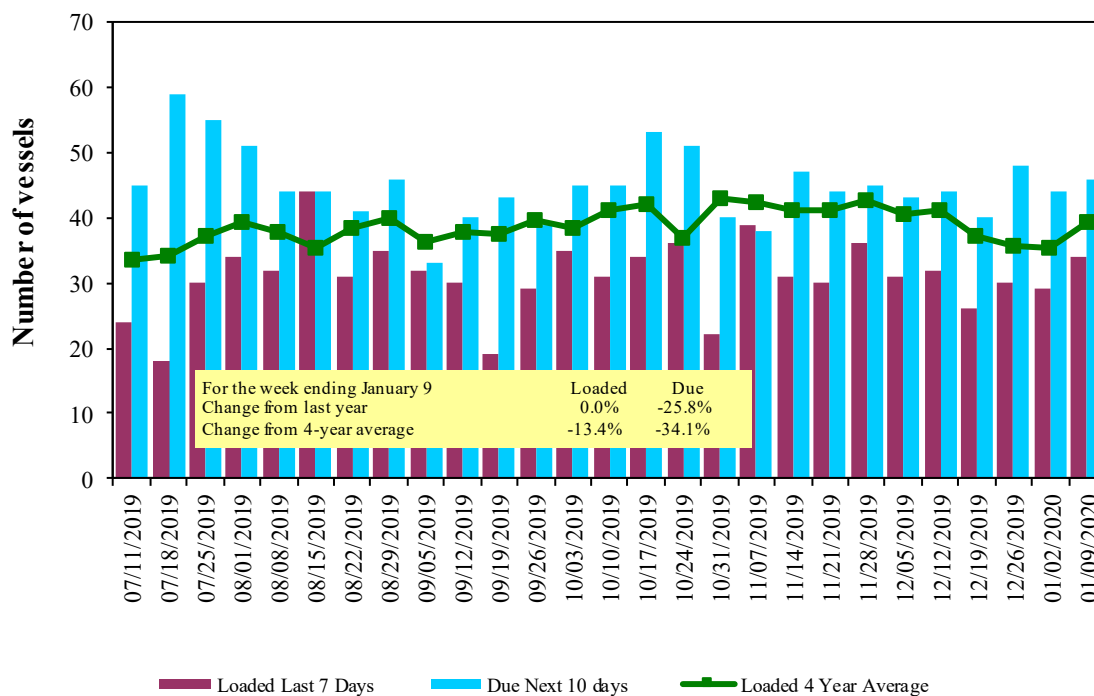
Weekly port region grain ocean vessel activity (number of vessels)

Date	Gulf			Pacific Northwest
	In port	Loaded 7-days	Due next 10-days	In port
1/9/2020	38	34	46	9
1/2/2020	30	29	44	7
2019 range	(26...61)	(18...44)	(33...69)	(8...33)
2019 average	40	31	49	17

Source: USDA, Agricultural Marketing Service.

Figure 16

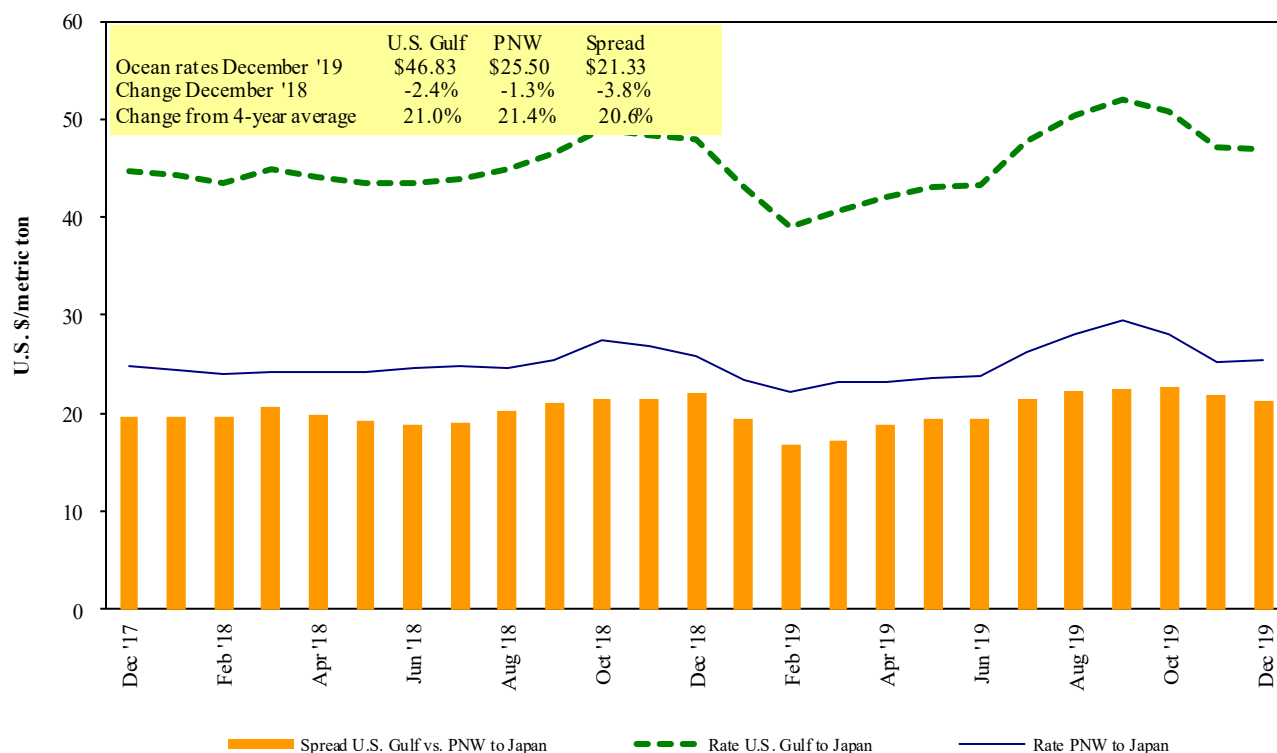
U.S. Gulf¹ vessel loading activity



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 1/11/2020

Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US\$/metric ton)
U.S. Gulf	Bangladesh	Wheat	Dec 10/20	48,990	79.92*
U.S. Gulf	China	Heavy Grain	Dec 15/20	65,000	49.75
U.S. Gulf	China	Heavy Grain	Nov 15/18	66,000	49.00
PNW	China	Heavy Grain	Jan 22/26	63,000	23.00
PNW	Bangladesh	Wheat	Dec 10/20	23,080	74.44*
PNW	Philippines	Soybean Meal	Oct 31/31	15,390	49.82*
PNW	Vietnam	Soybean Meal	Oct 21/31	3,200	49.82*
Brazil	China	Heavy Grain	Oct 1/10	65,000	32.00
Brazil	Japan	Corn	Dec 22/31	49,000	37.25 op 37.15
Ukraine	Egypt Med	Heavy Grain	Oct 19/23	60,000	13.50

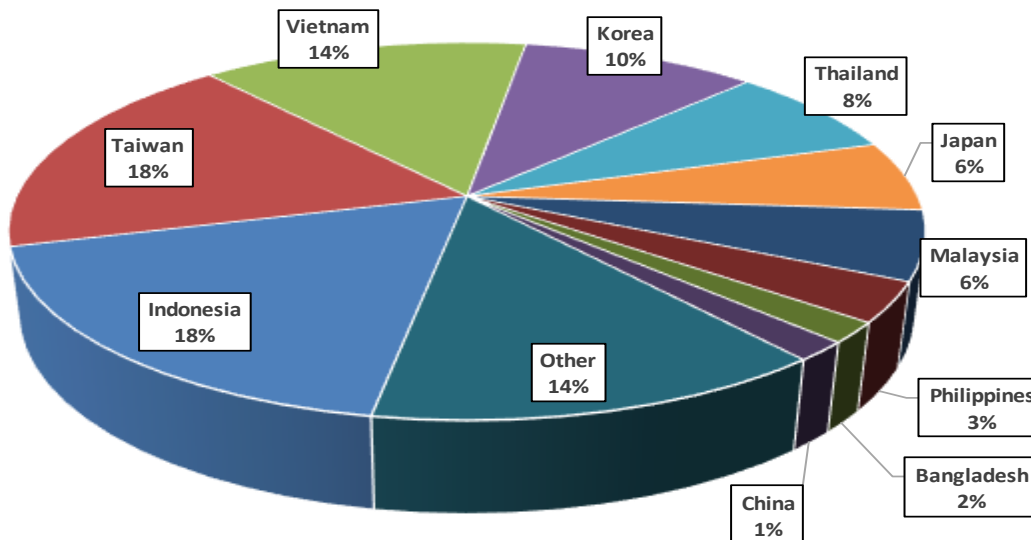
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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.

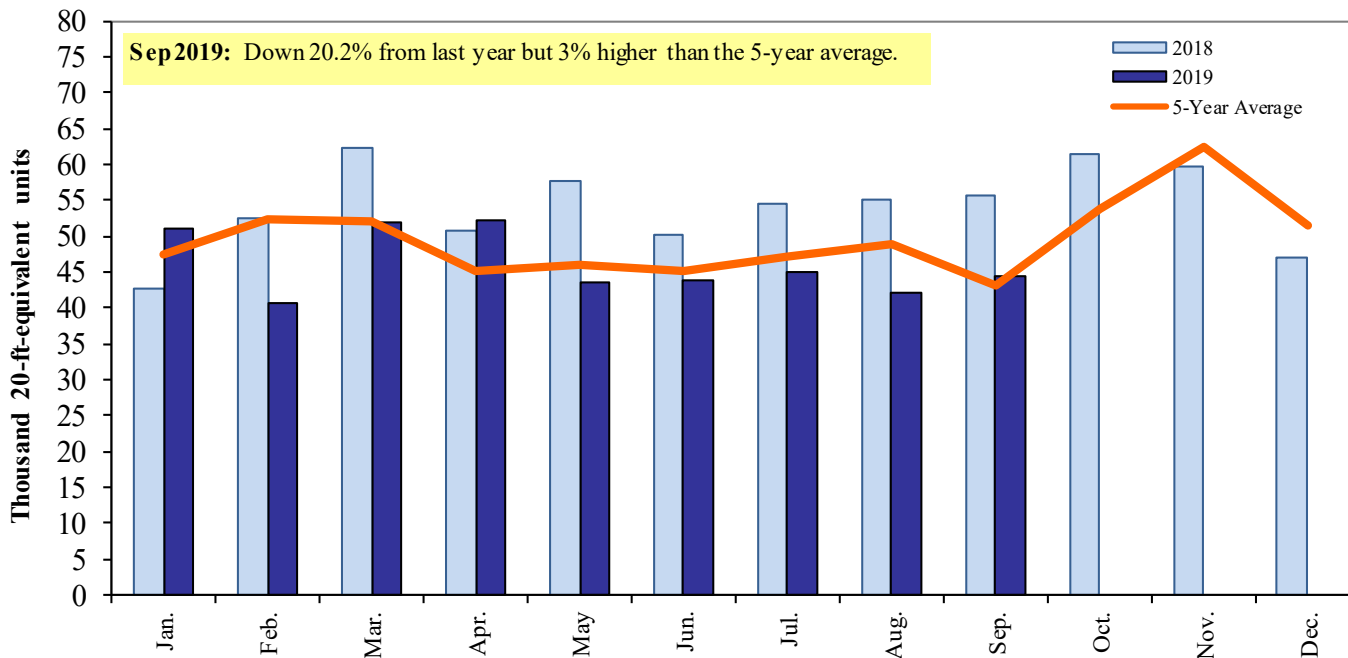
Figure 18
Top 10 destination markets for U.S. containerized grain exports, Jan-Sep 2019



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, 120100, 120810, 230210, 230310, 230330, and 230990.

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

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