United States Department of Agriculture

Grain Transportation Report

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

Contact Us

January 2, 2020

Contents

The next release is January 9, 2020

WEEKLY HIGHLIGHTS

DOT Requests Feedback on Rural Transportation Needs and Opportunities

Department of Transportation (DOT) Secretary Chao **announced a request for information** (RFI) from the public and stakeholders regarding the safety, condition, and use of rural infrastructure, as well as stakeholders' experiences using DOT discretionary grant and finance programs. The RFI is part of the Rural Opportunities to Use Transportation for Economic Success Initiative (**ROUTES**), and the public feedback will be reviewed and used by the ROUTES Council to aid evaluation of rural projects and improve funding options. Comments are sought by January 27, 2020.

University of Tennessee Publishes Two AMS-Sponsored Reports on Barge Topics

The University of Tennessee at Knoxville (UT-K) recently published **two reports** related to grain shipments by barge. (Summaries are **here**.) Both reports were based on research sponsored through cooperative agreements with USDA's Agricultural Marketing Service. One report investigated the effects of major lock closures on costs to shippers. The study examined the capacity of alternative truck, rail, and barge routes to accommodate diverted grain in the event of these disruptions. Results showed that a shutdown of the Lagrange Lock and Dam on the Illinois river could raise costs by over $265 million in a high-volume year, while a shutdown of Lock and Dam 25 on the Mississippi could raise costs up to $947 million. The second report found that a loss of barge traffic to northern Alabama could shut down the poultry industry and remove 9 percent of the region's economic output.

TRB Finalizes 99th Annual Meeting Program

The Transportation Research Board (TRB) will hold its **99th annual meeting** January 12-16, 2020, in Washington, DC. The meeting features over 5,000 presentations and covers a variety of topics on all transportation modes. This year's theme is "A Century of Progress: Foundation for the Future." Sessions include "Current Research in Agriculture and Food Transportation," "The Future of North American Freight Railroad Transportation," "Advances in Intermodal Freight Terminal Design and Operations," "Infrastructure Policy in 2020 and Beyond," "Research in Marine and Inland Waterway Transportation," and many others.

Snapshots by Sector

Export Sales

For the week ending December 19, **unshipped balances** of wheat, corn, and soybeans totaled 23.9 mmt. This represented a 28-percent decrease in outstanding sales, compared to the same time last year. Net **corn export sales** reached 0.625 mmt, down 63 percent from the past week. Net **soybean export sales** were 0.736 mmt, down 49 percent from the previous week. Net weekly **wheat export sales** reached .715 mmt, down 18 percent from the previous week.

Rail

U.S. Class I railroads originated 21,592 **grain carloads** during the week ending December 21. This was a 4-percent increase from the previous week, 9 percent less than last year, and 6 percent lower than the 3-year average.

Average January shuttle **secondary railcar** bids/offers (per car) were $363 below tariff for the week ending December 26. This was $6 more than last week and $169 lower than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending December 28, **barge grain movements** totaled 594,522 tons. This was a 24-percent increase from the previous week and 4 percent more than the same period last year.

For the week ending December 28, 378 grain barges **moved down river**—60 more barges than the previous week. There were 586 grain barges **unloaded in New Orleans**, 17 percent fewer than the previous week.

Ocean

For the week ending December 26, 30 **oceangoing grain vessels** were loaded in the Gulf—3.4 percent more than the same period last year. Within the next 10 days (starting December 27), 48 vessels were expected to be loaded—equivalent to the same period last year.

Fuel

For the week ending December 30, the U.S. average **diesel fuel price** increased 2.8 cents from the previous week to $3.069 per gallon, 2.1 cents above the same week last year.

Preferred citation: U.S. Dept. of Agriculture, Agricultural Marketing Service. *Grain Transportation Report.* January 2, 2020.
Web: **http://dx.doi.org/10.9752/TS056.01-02-2020**

Feature Article/Calendar

Dear Readers,

We are grateful to serve you and honored by your continued support over the past year. In the highly competitive, ever-evolving business of U.S. grain, we know that insightful, timely, and reliable information is key to your decisions. With the *Grain Transportation Report* (*GTR*) and other products, we strive to provide the information you need. This year, staff presented at several conferences and meetings, such as the Surface Transportation Board's (STB) National Grain Car Council and a Waterways Council, Inc. symposium. In addition, we wrapped up a number of research projects funded by USDA's Agricultural Marketing Service. These included studies on such topics as the role of the inland waterways in agriculture, the effects of barge disruptions, the complex set of factors that influence rail rates for grain, and container availability in the Pacific Northwest. We also filed two sets of comments with STB, one on demurrage and accessorial charges, and the other on STB's proposed rulemakings on final offer rate review and streamlined market dominance approach. In June, we rolled out a new open data platform—a multiyear effort to make our data more Useable, Sharable, Discoverable, and Accessible.

Synopsis of Agricultural Transportation in 2019

- **Low grain inspections.** Total grain exports were lower in 2019 than in 2018, including a major drop in corn inspections of 43 percent. Corn exports faced challenges from large harvests in South America and Ukraine and a strong U.S. dollar. U.S. corn export prices were high, amid concerns of planting delays and flooding in the Midwest, while Brazil and Argentina had lower export prices due to higher crop output and competitive transportation rates. Corn inspections fell 65 percent in the Pacific Northwest and 38 percent in the Mississippi Gulf, compared to last year. Year-to-date soybean inspections rose 14 percent from last year, mainly because of increased exports to China, while wheat inspections were up 21 percent.

- **Low volumes for barged grain.** From late 2018 through August 2019, poor navigation conditions due to flooding slowed barge traffic, particularly through the locking portions of the Mississippi River. By August, the flooding was replaced by a rapid drop in water levels, causing low water and shoaling. Although volumes recovered in November and December, the yearly total for barged grain was 23 percent lower than in 2018 and 28 percent lower than the average of the previous 3 years, mainly as a result of low volumes of barged corn. Rates fluctuated throughout the year, hitting lows for early fall because of delayed harvests, but rolling 4-week averages tended to exceed the 3-year averages for corresponding periods when service was available.

- **Low demand for grain by rail.** Affected by low export demand, grain carloads were below the prior 3-year average for most of the year, with only a few exceptions. Volumes spiked in April and July, likely resulting from pent-up demand after heavy flooding in March and June, but since July, carload volumes have been below average. Likewise, bids for rail cars in the secondary auction markets were low for most of the year. Given the low demand, rail service throughout the year was mostly strong. Grain train origin dwell times showed the significant effect of flooding in March and June. However, since July, grain train speeds, terminal dwell times, and grain origin dwell times have all improved significantly. In December, grain train speeds reached the highest they had been since 2016. Recent terminal and grain origin dwell times were also significantly lower than recent years.

- **Fuel prices lower than 2018.** Although diesel fuel prices were above the prior 3-year average throughout the year, they have been below 2018 levels since May. During the summer, prices came down, falling to just under $3 per gallon by the end of August, and have since averaged around $3.05.

Happy New Year

We are thankful for another great year. We hope our insight and analysis facilitated better transportation and marketing decisions in 2019, and we look forward to continuing to serve you in 2020. Many thanks to all industry and government representatives who work tirelessly to provide us with the necessary information and data to produce this report. We wish you a healthy and prosperous New Year!

Sincerely,

The Grain Transportation Report Team

Grain Transportation Indicators

Table 1
Grain transport cost indicators[1]

For the week ending	Truck	Rail: Unit train	Rail: Shuttle	Barge	Ocean: Gulf	Ocean: Pacific
01/01/20	206	n/a	210	175	n/a	n/a
12/25/19	204	n/a	210	177	208	181

[1]Indicator: Base year 2000 = 100. Weekly updates include truck = diesel ($/gallon); rail = near-month secondary rail market bid and monthly tariff rate with fuel surcharge ($/car); barge = Illinois River barge rate (index = percent of tariff rate); ocean = routes to Japan ($/metric ton); n/a = not available.
Source: USDA, Agricultural Marketing Service.

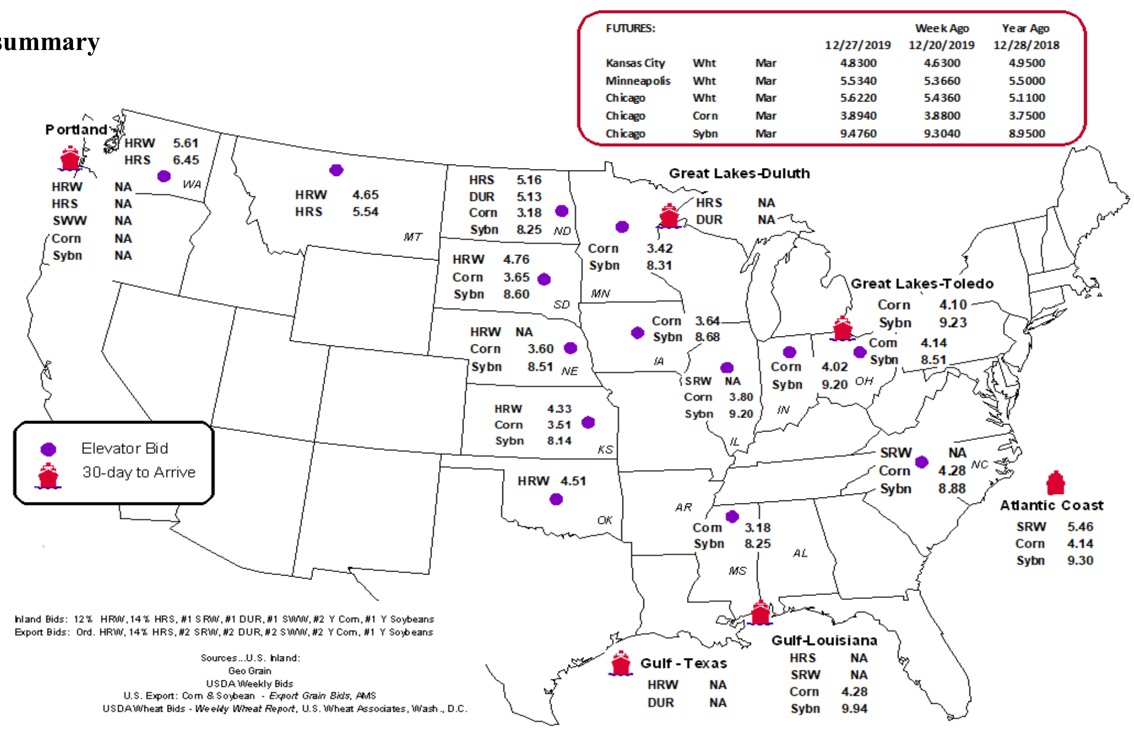
Table 2
Market Update: U.S. origins to export position price spreads ($/bushel)

Commodity	Origin–destination	12/27/2019	12/20/2019
Corn	IL–Gulf	-0.48	-0.50
Corn	NE–Gulf	-0.68	-0.72
Soybean	IA–Gulf	-1.26	-1.26
HRW	KS–Gulf	n/a	-2.32
HRS	ND–Portland	n/a	-2.31

Note: nq = no quote; n/a = not available; HRW = hard red winter wheat; HRS = hard red spring wheat.
Source: USDA, Agricultural Marketing Service.

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1
Grain bid summary



Rail Transportation

Table 3

Rail deliveries to port (carloads)[1]

For the week ending	Mississippi Gulf	Texas Gulf	Pacific Northwest	Atlantic & East Gulf	Total	Week ending	Cross-border Mexico[3]
12/25/2019[p]	433	134	3,161	97	3,825	12/21/2019	2,665
12/18/2019[r]	442	447	4,652	259	5,800	12/14/2019	2,914
2019 YTD[r]	40,974	50,739	251,181	16,192	359,086	2019 YTD	127,329
2018 YTD[r]	22,118	46,532	310,449	21,432	400,531	2018 YTD	129,116
2019 YTD as % of 2018 YTD	185	109	81	76	90	% change YTD	99
Last 4 weeks as % of 2018[2]	339	56	77	50	79	Last 4wks. % 2018	103
Last 4 weeks as % of 4-year avg.[2]	117	29	66	31	60	Last 4wks. % 4 yr.	140
Total 2018	22,118	46,532	310,449	21,432	400,531	Total 2018	129,116
Total 2017	28,796	75,543	287,267	21,312	412,918	Total 2017	119,661

[1]Data is incomplete as it is voluntarily provided.

[2] Compared with same 4-weeks in 2018 and prior 4-year average.

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

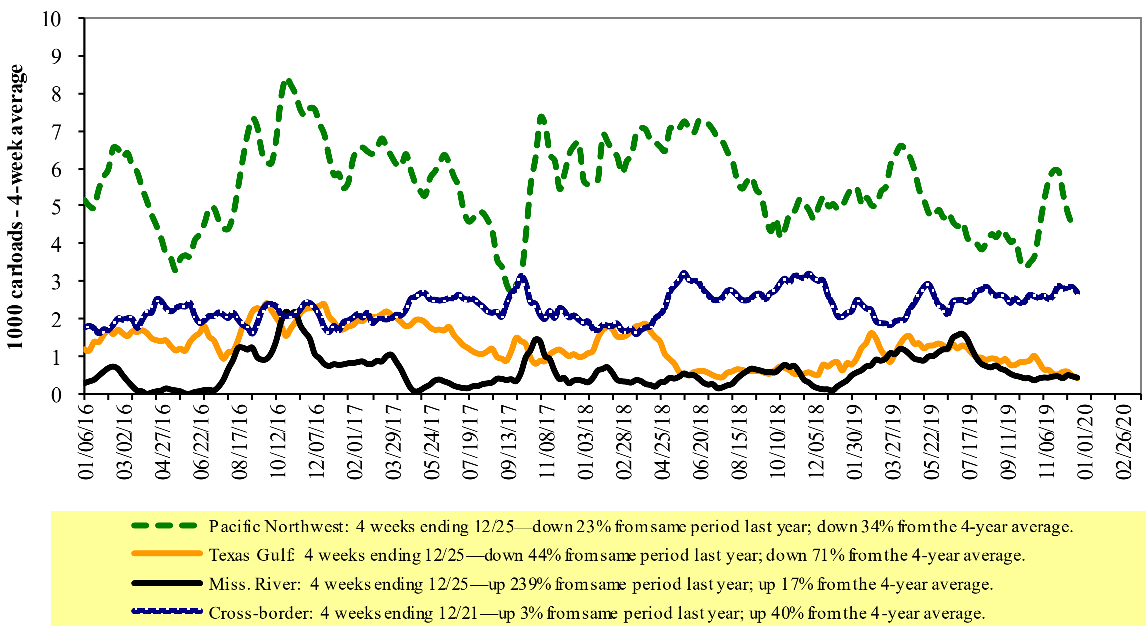
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available; wks. = weeks; avg. = average.

Source: USDA, Agricultural Marketing Service.

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

Figure 2

Rail deliveries to port



Source: USDA, Agricultural Marketing Service.

Table 4

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

For the week ending:	East		West			U.S. total	Canada	
12/21/2019	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,789	2,457	11,770	1,272	4,304	21,592	3,983	5,512
This week last year	1,834	2,835	12,454	1,160	5,492	23,775	4,078	4,800
2019 YTD	90,619	135,341	560,605	57,889	255,988	1,100,442	209,983	232,765
2018 YTD	97,541	130,506	625,376	48,103	263,970	1,165,496	207,396	240,927
2019 YTD as % of 2018 YTD	93	104	90	120	97	94	101	97
Last 4 weeks as % of 2018*	97	92	94	103	90	94	111	103
Last 4 weeks as % of 3-yr. avg.**	86	87	94	106	85	91	114	103
Total 2018	98,978	133,195	635,458	48,638	267,713	1,183,982	211,538	244,697

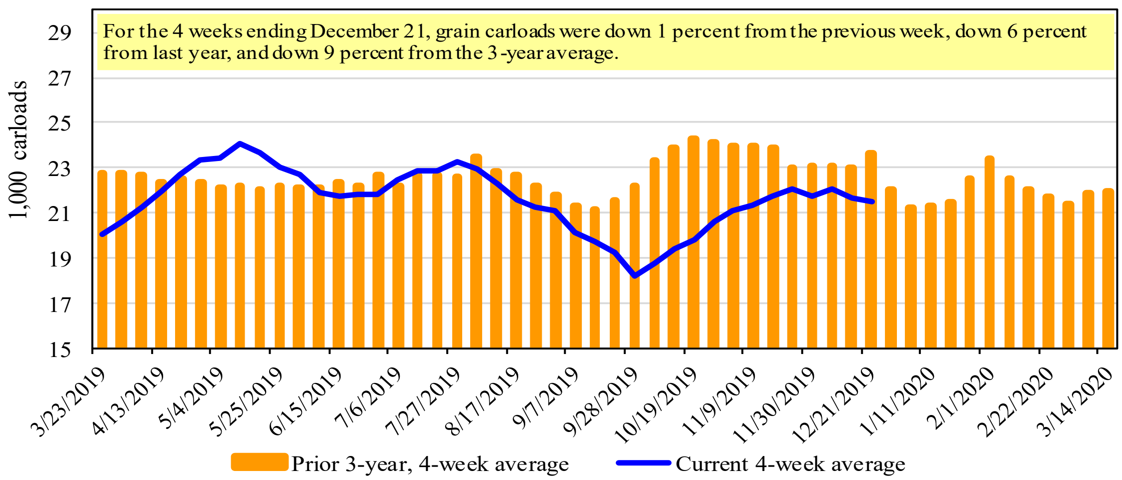
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

**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 offerings[1] ($/car)[2]

For the week ending: 12/26/2019		Jan-20	Jan-19	Feb-20	Feb-19	Mar-20	Mar-19	Apr-20	Apr-19
		Delivery period							
BNSF[3]	COT grain units	n/a	0	n/a	0	n/a	no bids	n/a	no bids
	COT grain single-car	n/a	68	n/a	0	n/a	no bids	n/a	0
UP[4]	GCAS/Region 1	no offer	no offer	no offer	no bid	no offer	no offer	n/a	n/a
	GCAS/Region 2	no bid	no offer	no bid	no bid	no bid	no offer	n/a	n/a

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

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

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

[4]UP - GCAS = Grain Car Allocation System.

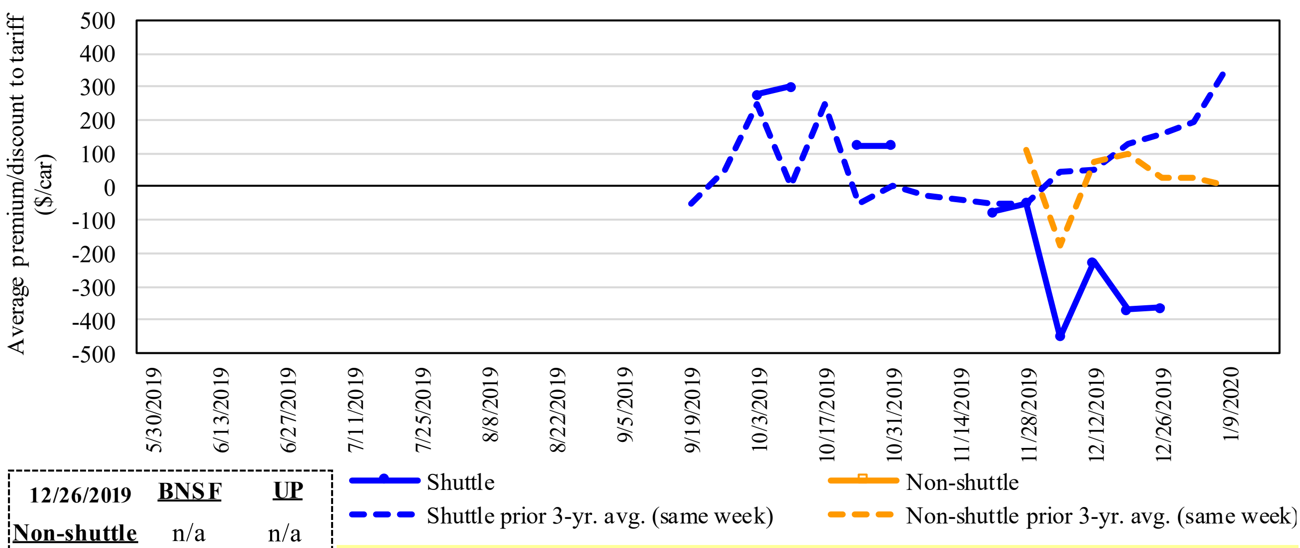
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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

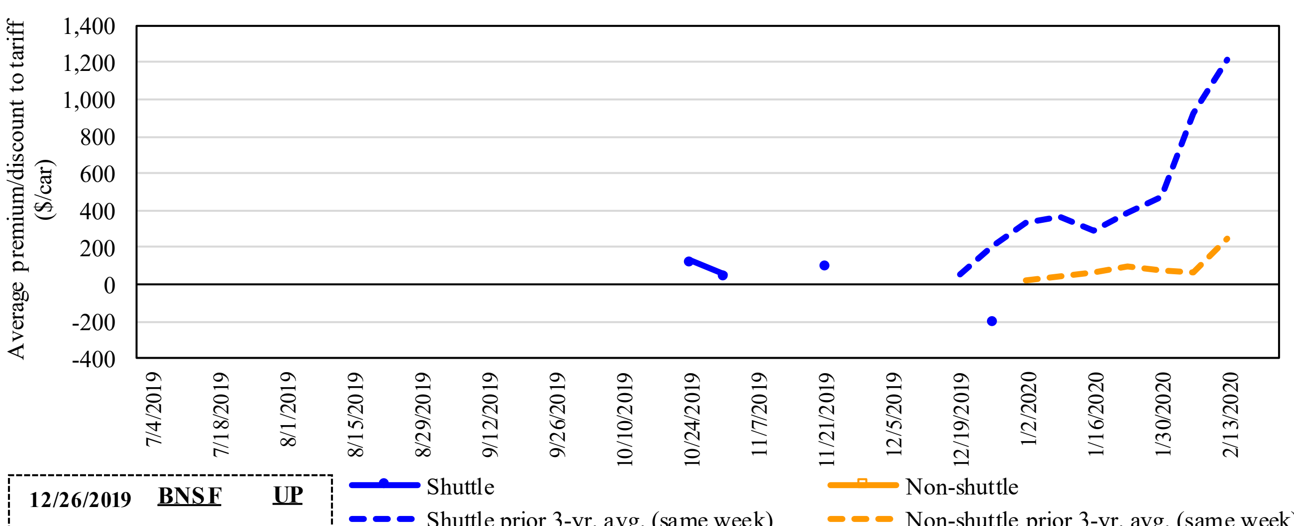


12/26/2019	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	-$350	-$375

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers rose $6 this week and are $663 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.

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



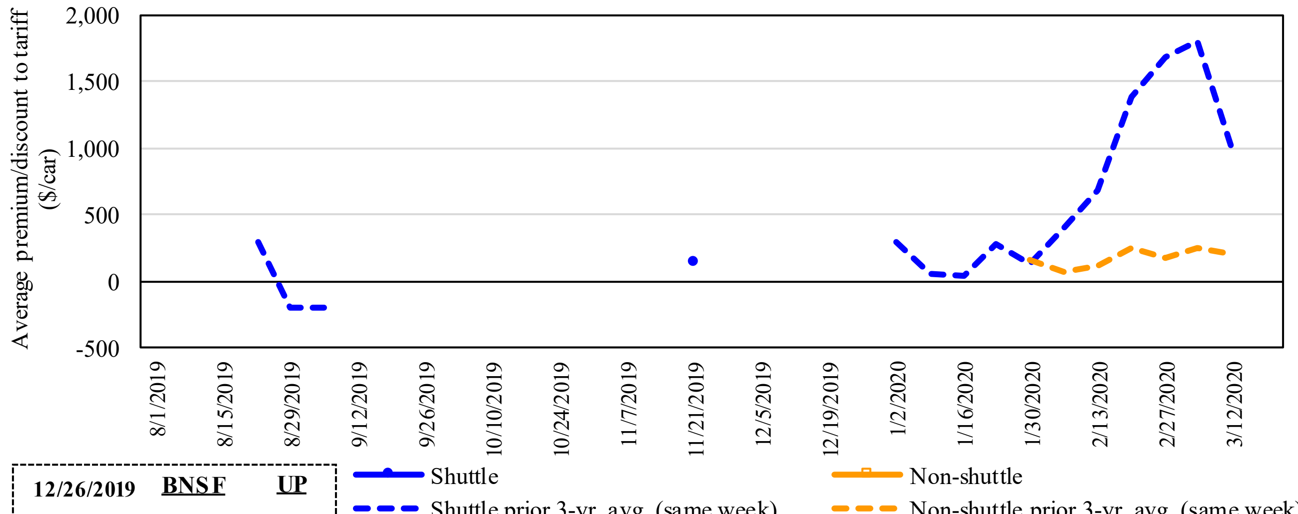
12/26/2019	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	n/a	-$200

There were no non-shuttle bids/offers this week.
There were no shuttle bids/offers last week. Average non-shuttle bids/offers this week are $325 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.

Figure 6

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



12/26/2019	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	n/a	n/a

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

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

Table 6

Weekly secondary railcar market ($/car)[1]

	For the week ending: 12/26/2019	Delivery period: Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-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 2018	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 2018	n/a	n/a	n/a	n/a	n/a	n/a
Shuttle	**BNSF-GF**	**(350)**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	75	n/a	n/a	n/a	n/a	n/a
	Change from same week 2018	(363)	n/a	n/a	n/a	n/a	n/a
	UP-Pool	**(375)**	**(200)**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	(62)	n/a	n/a	n/a	n/a	n/a
	Change from same week 2018	25	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 shipments[1]

January 2020	Origin region[3]	Destination region[3]	Tariff rate/car	Fuel surcharge per car	Tariff plus surcharge per: metric ton	Tariff plus surcharge per: bushel[2]	Percent change Y/Y[4]
Unit train							
Wheat	Wichita, KS	St. Louis, MO	$3,983	$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
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	$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
Soybeans	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
	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

[1]A unit train refers to shipments of at least 25 cars. Shuttle train rates are generally available for qualified shipments of 75-120 cars that meet railroad efficiency requirements.

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

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

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

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

Table 8

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

Commodity	Origin state	Destination region	Tariff rate/car[1]	Fuel surcharge per car[2]	Tariff plus surcharge per: metric ton[3]	bushel[3]	Percent change[4] Y/Y
Date: January 2020							
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	Torreon, 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	Torreon, 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	Torreon, CU	$7,157	$339	$76.59	$1.94	4

[1]Rates are based upon published tariff rates for high-capacity shuttle trains. Shuttle trains are available for qualified shipments of 75-110 cars that meet railroad efficiency requirements.

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

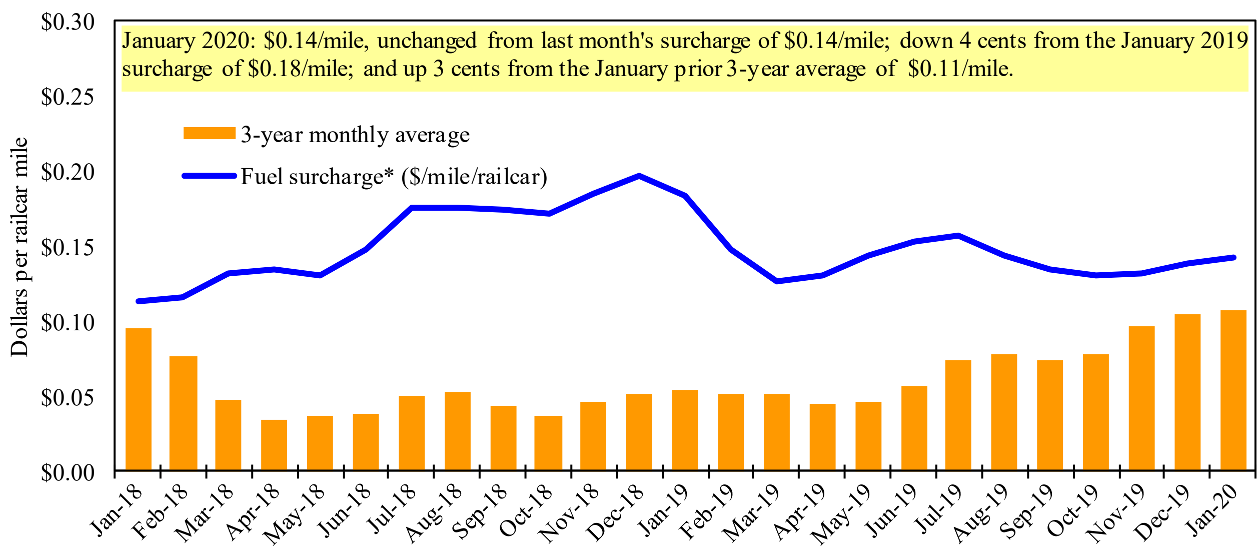
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

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

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

Figure 7

Railroad fuel surcharges, North American weighted average[1]

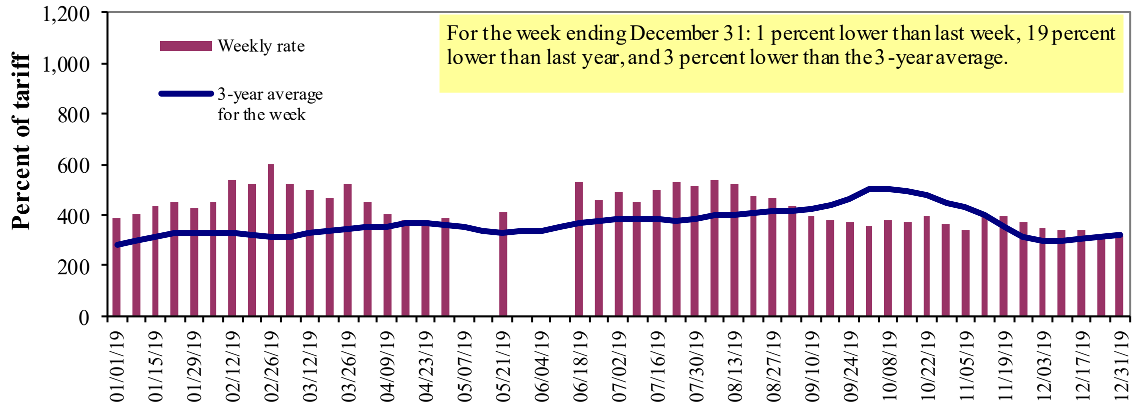


[1] Weighted by each Class I railroad's proportion of grain traffic for the prior year.
* Beginning January 2009, the Canadian Pacific fuel surcharge is computed by a monthly average of the bi-weekly fuel surcharge.
**CSX strike price changed from $2.00/gal. to $3.75/gal. starting January 1, 2015.
Sources: BNSF Railway, Canadian National Railway, CSX Transportation, Canadian Pacific, Union Pacific Railroad, Kansas City Southern, Norfolk Southern Corp.

Barge Transportation

Figure 8

Illinois River barge freight rate[1,2]



[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-week moving average of the 3-year average.
Source: USDA, Agricultural Marketing Service.

Table 9

Weekly barge freight rates: Southbound only

		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate[1]	12/31/2019	-	-	315	221	243	243	210
	12/24/2019	-	-	318	225	237	237	210
$/ton	12/31/2019	-	-	14.62	8.82	11.40	9.82	6.59
	12/24/2019	-	-	14.76	8.98	11.12	9.57	6.59
Current week % change from the same week:								
	Last year	-	-	-19	-29	-33	-33	-18
	3-year avg. [2]	-	-	-3	-8	-14	-14	2
Rate[1]	January	-	-	345	234	249	249	219
	March	-	-	346	240	249	249	221

[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]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 included in tables on this page. The 1976 benchmark rates per ton are provided in map.

Map Credit: USDA, Agricultural Marketing Service

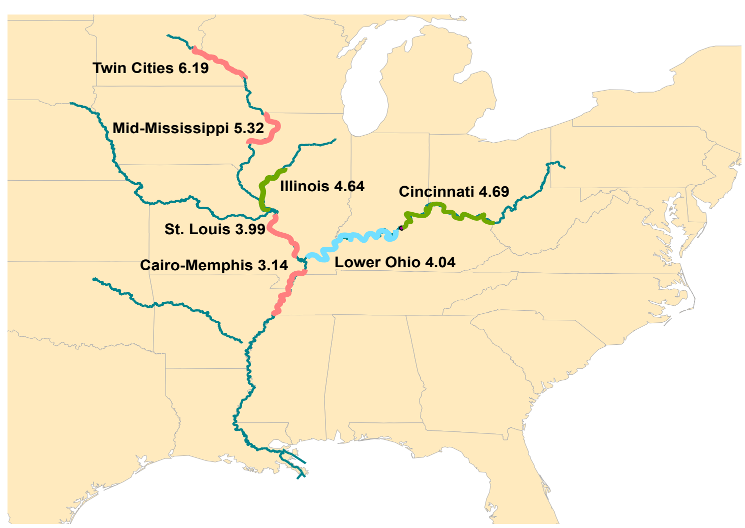
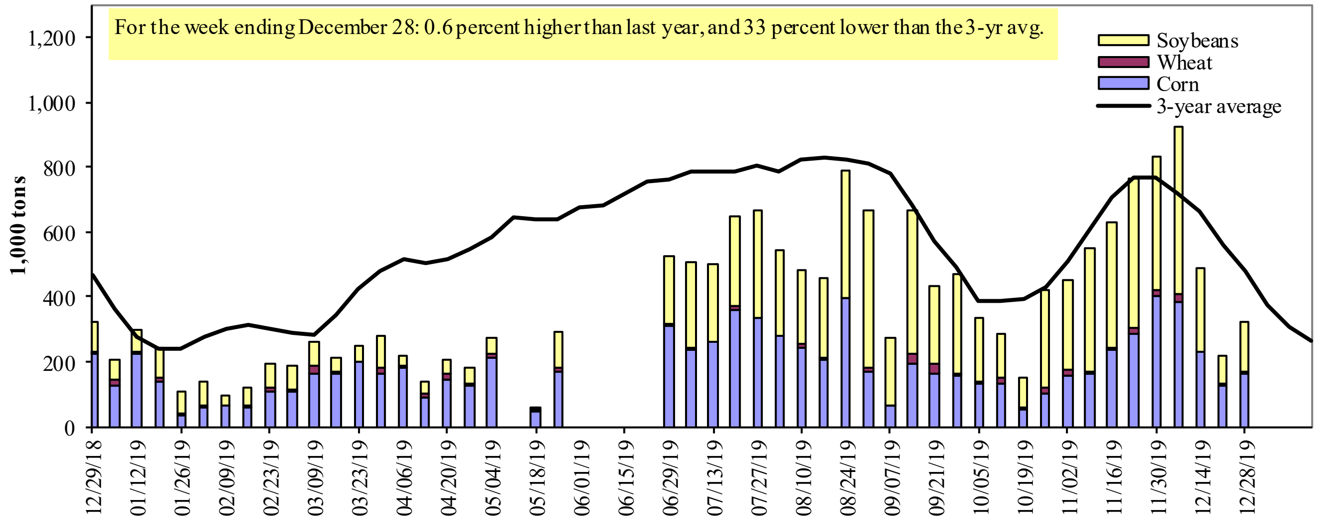


Figure 10

Barge movements on the Mississippi River[1] (Locks 27 - Granite City, IL)



[1] The 3-year average is a 4-week moving average.

Source: U.S. Army Corps of Engineers.

Table 10

Barge grain movements (1,000 tons)

For the week ending 12/28/2019	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)	148	5	128	0	281
Granite City, IL (L27)	164	5	154	0	322
Illinois River (LAGRANGE)	121	5	160	0	285
Ohio River (OLMSTED)	83	11	159	2	255
Arkansas River (L1)	0	0	17	0	17
Weekly total - 2019	247	15	330	2	595
Weekly total - 2018	315	39	216	3	573
2019 YTD[1]	12,780	1,631	14,683	154	29,247
2018 YTD[1]	23,349	1,674	12,819	133	37,975
2019 as % of 2018 YTD	55	97	115	116	77
Last 4 weeks as % of 2018[2]	65	91	150	59	98
Total 2018	23,349	1,674	12,819	133	37,975

[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.

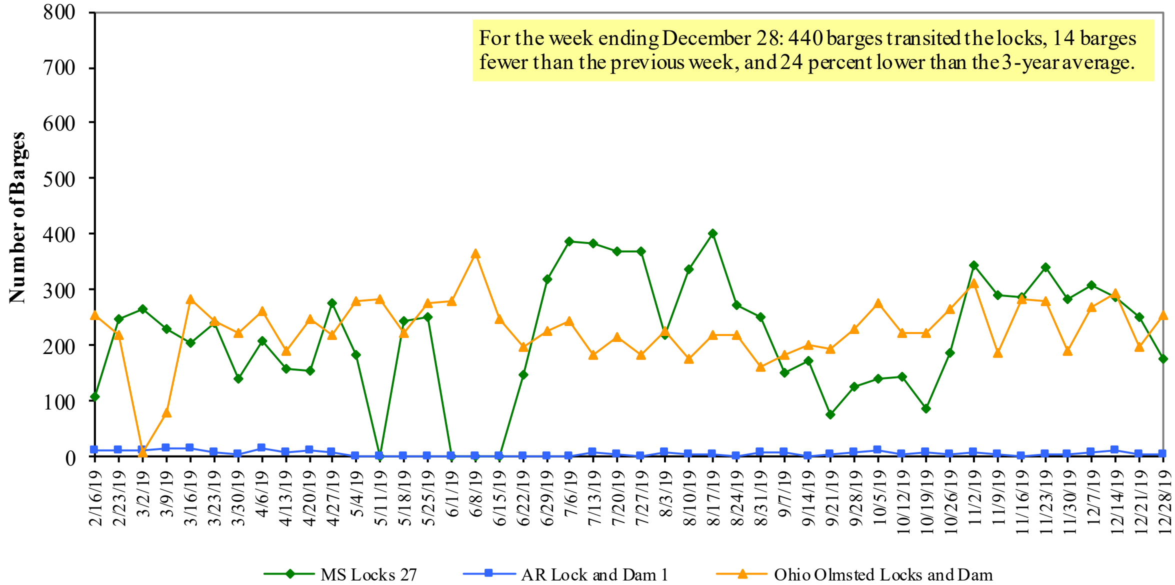
[2] As a percent of same period in 2018.

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

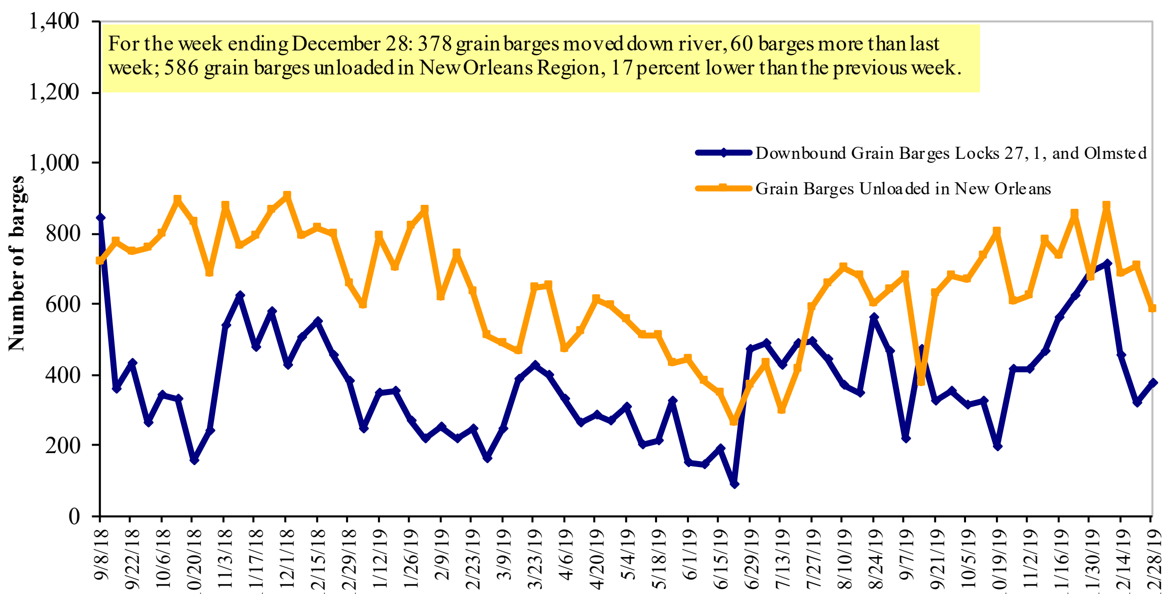
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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 Market Service.

Truck Transportation

The **weekly diesel price** provides a proxy for trends in U.S. truck rates as diesel fuel is a significant expense for truck grain movements.

Table 11

Retail on-highway diesel prices, week ending 12/30/2019 (U.S. $/gallon)

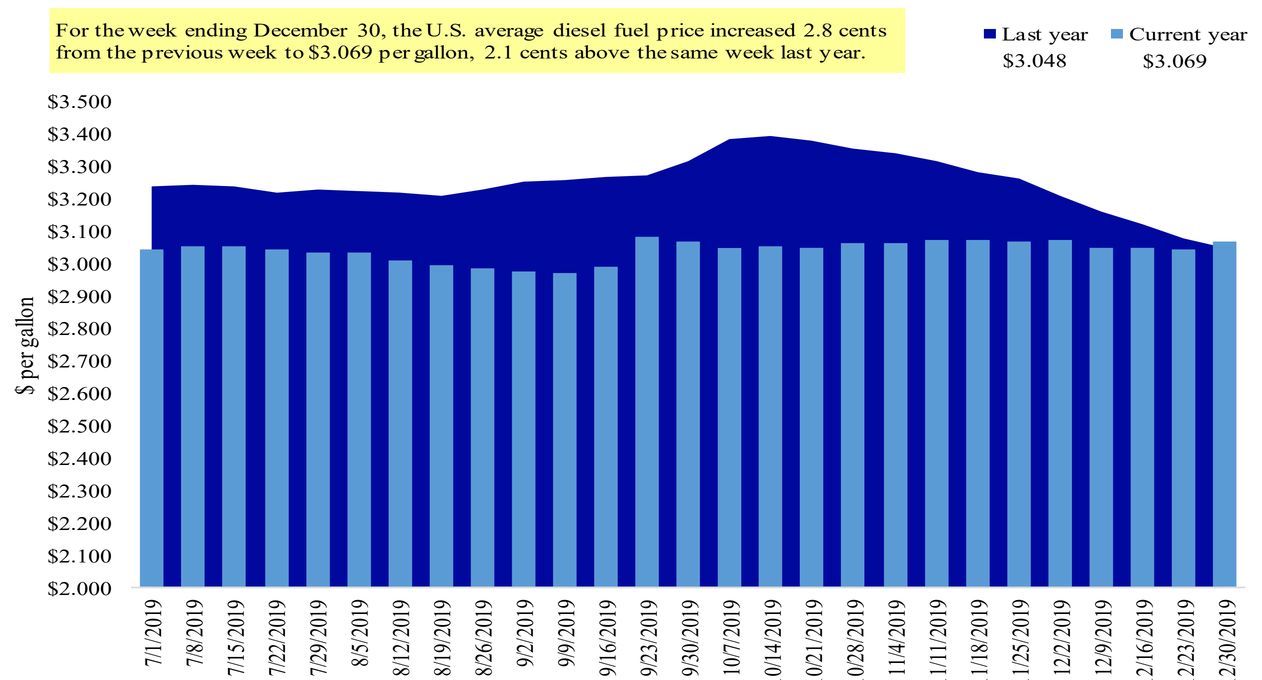
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.096	0.044	-0.014
	New England	3.114	0.016	-0.120
	Central Atlantic	3.271	0.026	-0.015
	Lower Atlantic	2.975	0.062	0.010
II	Midwest	2.978	0.010	0.071
III	Gulf Coast	2.808	0.045	-0.033
IV	Rocky Mountain	3.113	-0.014	0.042
V	West Coast	3.623	0.029	0.061
	West Coast less California	3.274	0.022	0.028
	California	3.899	0.033	0.086
Total	U.S.	3.069	0.028	0.021

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

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

Figure 13

Weekly diesel fuel prices, U.S. average



Source: U.S. Department of Energy, Energy Information Administration, Retail On-Highway Diesel Prices.

Grain Exports

Table 12

U.S. export balances and cumulative exports (1,000 metric tons)

For the week ending	Wheat HRW	Wheat SRW	Wheat HRS	Wheat SWW	Wheat DUR	All wheat	Corn	Soybeans	Total
Export balances[1]									
12/19/2019	1,489	558	1,386	1,104	196	4,732	9,896	9,317	23,944
This week year ago	1,725	846	1,680	1,116	95	5,462	13,729	13,904	33,095
Cumulative exports-marketing year[2]									
2019/20 YTD	5,312	1,523	3,821	2,582	572	13,810	7,928	19,844	41,582
2018/19 YTD	3,520	1,367	3,677	2,836	323	11,723	17,596	16,025	45,344
YTD 2019/20 as % of 2018/19	151	111	104	91	177	118	45	124	92
Last 4 wks as % of same period 2018/19	80	64	78	88	171	80	66	69	70
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 importers[1] of U.S. corn

For the week ending 12/19/2019	**Total commitments[2] 2019/20 current MY**	**2018/19 last MY**	**% change current MY from last MY**	**Exports[3] 3-yr. avg. 2016-18**
	- 1,000 mt -			
Mexico	8,748	10,816	(19)	14,659
Japan	2,628	6,289	(58)	11,955
Korea	11	2,225	(100)	4,977
Colombia	1,402	1,965	(29)	4,692
Peru	15	1,324	(99)	2,808
Top 5 Importers	**12,804**	**22,619**	**(43)**	**39,091**
Total U.S. corn export sales	**17,823**	**31,325**	**(43)**	**54,024**
% of projected exports	38%	60%		
Change from prior week[2]	**625**	**1,699**		
Top 5 importers' share of U.S. corn export sales	72%	72%		72%
USDA forecast December 2019	**47,074**	**52,545**	**(10)**	
Corn use for ethanol USDA forecast, December 2019	**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 Agriculltural Service.

Table 14

Top 5 importers[1] of U.S. soybeans

For the week ending 12/19/2019	Total commitments[2] 2019/20 current MY	2018/19 last MY	% change current MY from last MY	Exports[3] 3-yr. avg. 2016-18
	- 1,000 mt -			- 1,000 mt -
China	10,937	3,483	214	25,733
Mexico	2,849	3,911	(27)	4,271
Indonesia	872	1,128	(23)	2,386
Japan	1,155	1,354	(15)	2,243
Egypt	1,229	1,164	6	1,983
Top 5 importers	**17,042**	**11,040**	**54**	**36,616**
Total U.S. soybean export sales	**29,161**	**29,930**	**(3)**	**53,746**
% of projected exports	60%	63%		
change from prior week[2]	**736**	**2,391**		
Top 5 importers' share of U.S. soybean export sales	58%	37%		**68%**
USDA forecast, December 2019	**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 reivisions from previous eweek'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 Agriculltural Service.

Table 15

Top 10 importers[1] of all U.S. wheat

For the week ending 12/19/2019	Total commitments[2] 2019/20 current MY	2018/19 last MY	% change current MY from last MY	Exports[3] 3-yr. avg. 2016-18
	- 1,000 mt -			- 1,000 mt -
Philippines	2,412	2,310	4	3,047
Mexico	2,675	2,044	31	3,034
Japan	1,918	2,159	(11)	2,695
Nigeria	1,015	850	19	1,564
Indonesia	581	625	(7)	1,381
Korea	1,006	1,130	(11)	1,355
Taiwan	974	755	29	1,164
Egypt	101	391	(74)	821
Thailand	630	788	(20)	747
Iraq	262	364	(28)	574
Top 10 importers	**11,575**	**11,416**	1	**16,382**
Total U.S. wheat export sales	**18,542**	**17,185**	**8**	**24,388**
% of projected exports	70%	67%		
change from prior week[2]	**715**	**514**		
Top 10 importers' share of U.S. wheat export sales	62%	66%		67%
USDA forecast, December 2019	**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 12/26/19	Previous week*	Current week as % of previous	2019 YTD*	2018 YTD*	2019 YTD as % of 2018 YTD	Last 4-weeks as % of: Last year	Prior 3-yr. avg.	2018 total*
Pacific Northwest									
Wheat	243	417	58	13,961	13,315	105	85	100	13,315
Corn	20	0	n/a	7,047	20,024	35	6	8	20,024
Soybeans	0	129	0	11,897	7,719	154	446	80	7,719
Total	**263**	**546**	**48**	**32,905**	**41,058**	**80**	**82**	**68**	**41,058**
Mississippi Gulf									
Wheat	13	13	96	4,448	3,896	114	58	78	3,896
Corn	231	245	94	20,763	33,735	62	60	68	33,735
Soybeans	810	845	96	31,398	28,124	112	129	97	28,124
Total	**1,054**	**1,103**	**96**	**56,609**	**65,755**	**86**	**96**	**87**	**65,755**
Texas Gulf									
Wheat	41	69	60	6,009	3,198	188	59	49	3,198
Corn	32	0	n/a	640	730	88	210	140	730
Soybeans	0	0	n/a	2	69	2	n/a	0	69
Total	**73**	**69**	**106**	**6,650**	**3,997**	**166**	**71**	**49**	**3,997**
Interior									
Wheat	7	84	8	1,984	1,614	123	164	169	1,614
Corn	119	149	80	7,857	8,650	91	136	124	8,650
Soybeans	121	157	77	7,051	6,729	105	135	137	6,729
Total	**247**	**391**	**63**	**16,892**	**16,993**	**99**	**139**	**135**	**16,993**
Great Lakes									
Wheat	25	54	46	1,339	894	150	147	152	894
Corn	0	0	n/a	11	404	3	n/a	0	404
Soybeans	20	0	n/a	493	1,192	41	51	29	1,192
Total	**45**	**54**	**83**	**1,844**	**2,491**	**74**	**125**	**103**	**2,491**
Atlantic									
Wheat	0	0	n/a	37	69	54	n/a	0	69
Corn	0	0	n/a	99	138	72	0	0	138
Soybeans	8	24	34	1,352	2,047	66	64	40	2,047
Total	**8**	**24**	**34**	**1,488**	**2,253**	**66**	**63**	**38**	**2,253**
U.S. total from ports*									
Wheat	329	637	52	27,778	22,986	121	86	94	22,986
Corn	402	395	102	36,417	63,682	57	54	62	63,682
Soybeans	959	1,155	83	52,194	45,879	114	146	91	45,879
Total	**1,690**	**2,187**	**77**	**116,389**	**132,547**	**88**	**96**	**83**	**132,547**

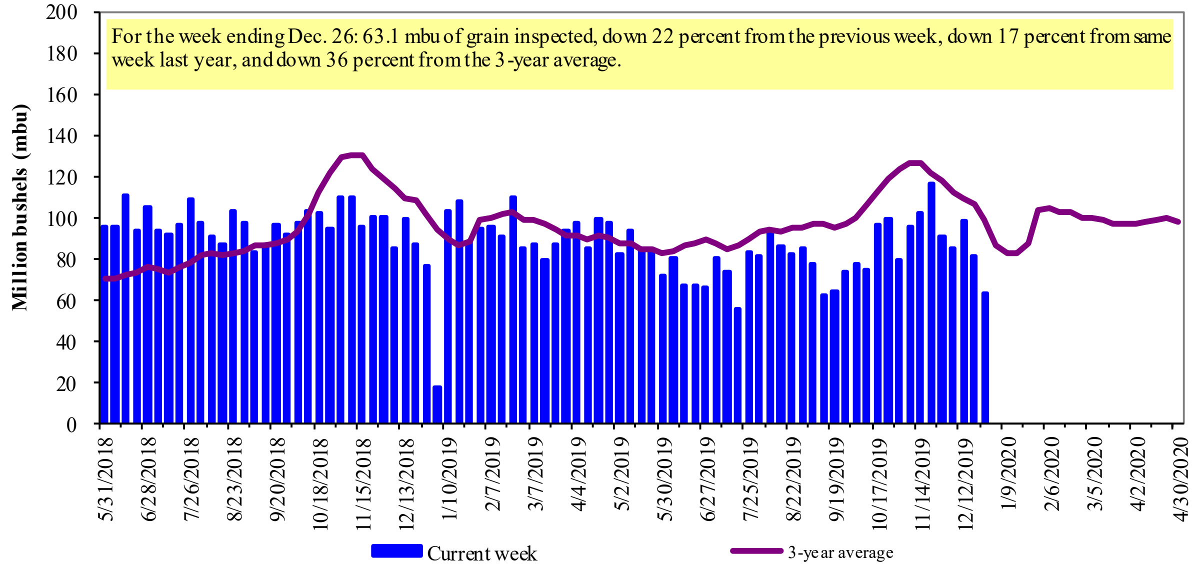
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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)

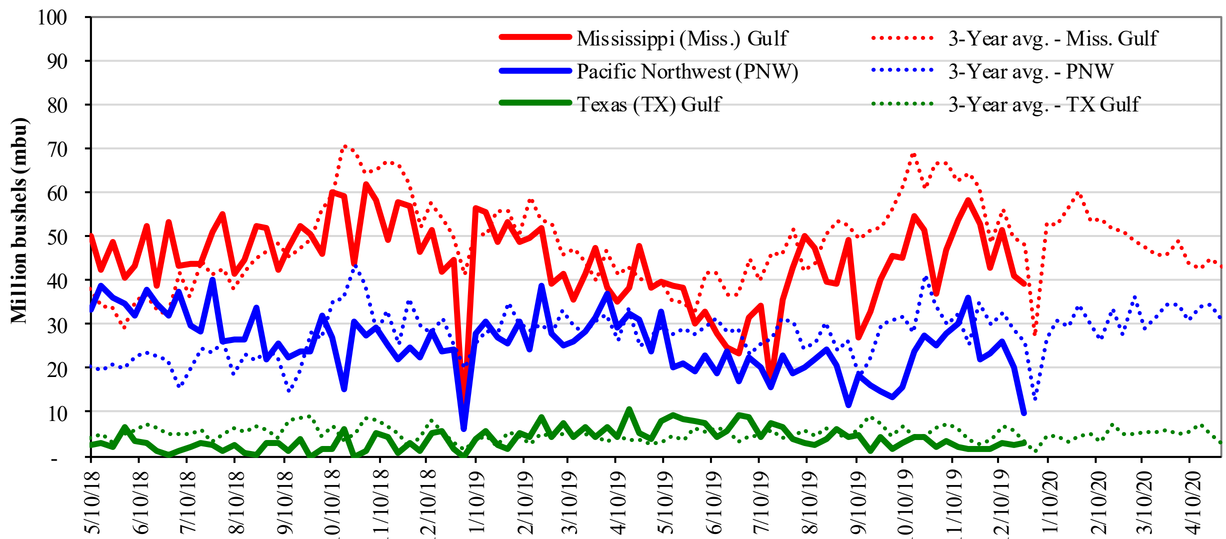


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

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



Week ending 12/26/19 inspections (mbu):		Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
MS Gulf:	39.3	Last wk:	down 4	up 9	down 4	down 52
PNW:	9.7	Last Year (same wk):	down 12	up 83	down 9	down 60
TX Gulf:	2.8	3-yr avg. (4-wk. mov. Avg):	down 22	down 44	down 24	down 67

Source: USDA, Federal Grain Inspection Service.

Ocean Transportation

Table 17

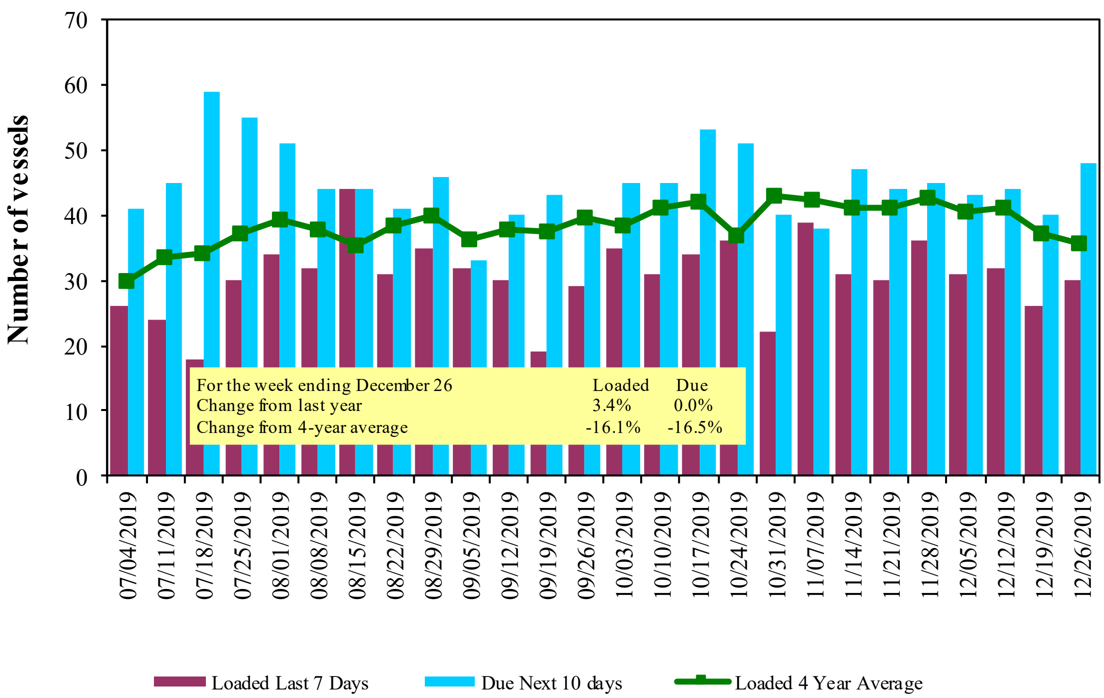
Weekly port region grain ocean vessel activity (number of vessels)

	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
12/26/2019	27	30	48	10
12/19/2019	31	26	40	11
2018 range	(23...88)	(24...41)	(38...67)	(4...30)
2018 average	40	34	54	17

Source: USDA, Agricultural Marketing Service.

Figure 16

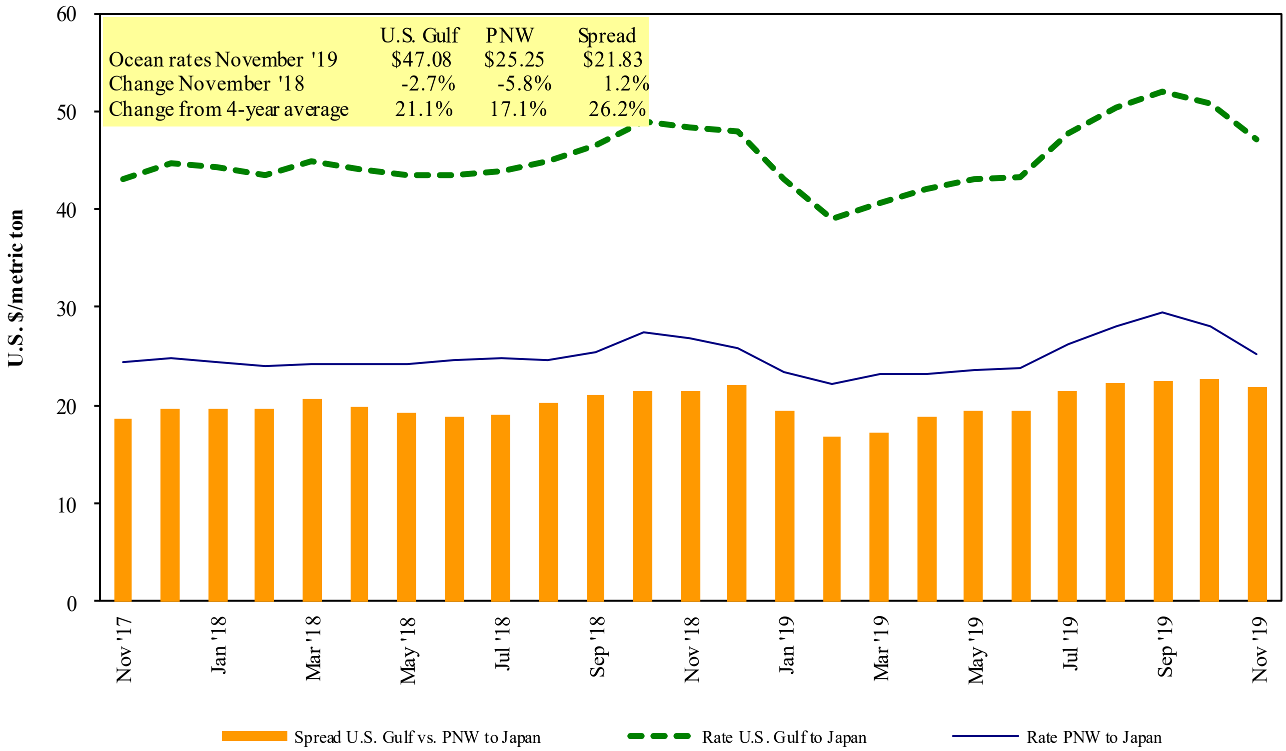
U.S. Gulf[1] vessel loading activity



[1]U.S. Gulf includes Mississippi, Texas, and East Gulf.
Source: USDA, Agricultural Marketing Service.

Figure 17

Grain vessel rates, U.S. to Japan



Note: PNW = Pacific Northwest.

Source: O'Neil Commodity Consulting.

Table 18

Ocean freight rates for selected shipments, week ending 12/28/2019

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
U.S. Gulf	Pt Sudan	Sorghum	Sep 20/30	24,960	58.15*
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*
PNW	Yemen	Wheat	Sep 20/30	35,000	62.19*
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.

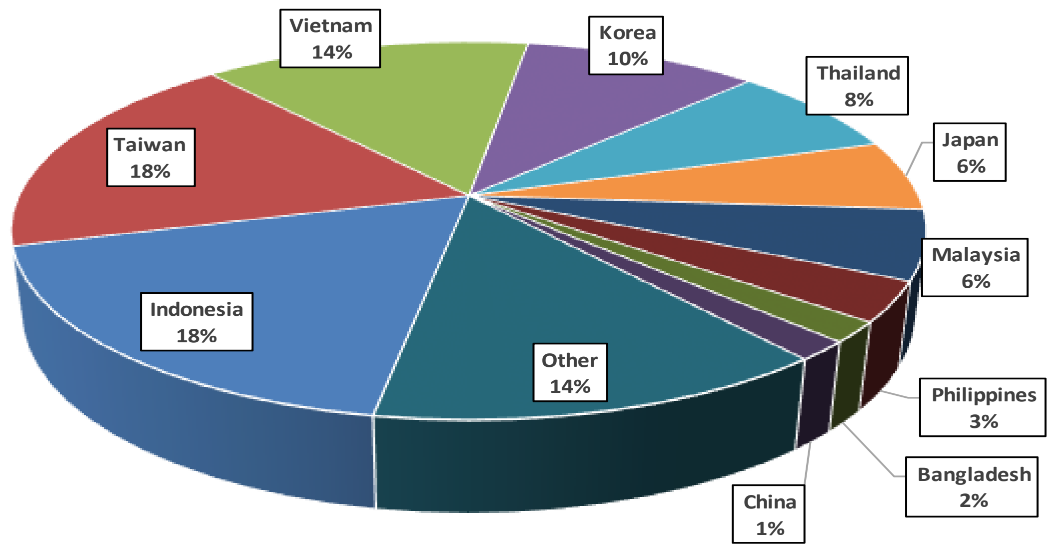
Note: Rates shown are per metric ton (2,204.62 lbs. = 1 metric ton), free on board (F.O.B), except where otherwise indicated; op = option.

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

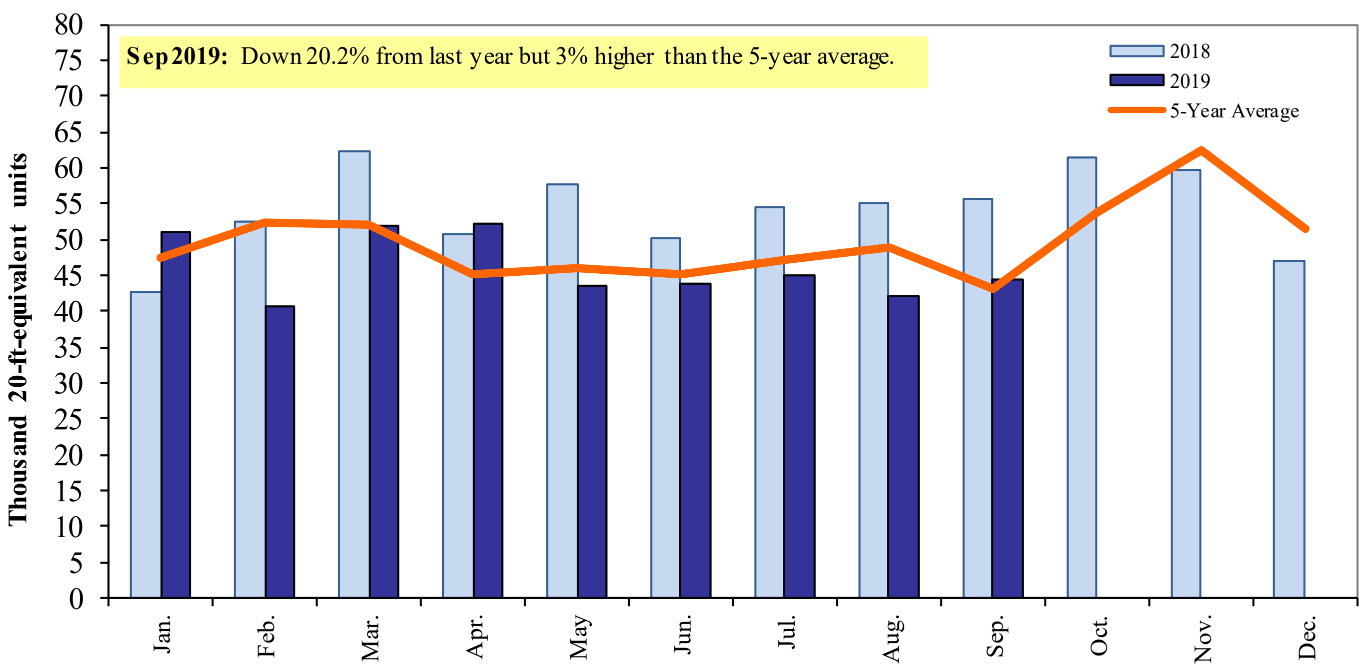


Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 1001, 100190, 1002, 1003 100300, 1004, 100400, 1005, 100590, 1007, 100700, 1102, 110100, 230310, 110220, 110290, 1201, 120100, 230210, 230990, 230330, and 120810.

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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