USDA United States Department of Agriculture

Grain Transportation Report

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

Contact Us

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Contents

The next release is January 30, 2020

WEEKLY HIGHLIGHTS

Grain Inspections Down but PNW Inspections Rebound

For the week ending January 16, **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 down 9 percent from the previous week, down 29 percent from last year, and 8 percent below the 3-year average. Inspections of wheat and corn dropped 22 percent and 28 percent, respectively, from the previous week. Soybean inspections, however, increased 4 percent from week to week. Pacific Northwest (PNW) grain inspections increased 19 percent from the previous week and were the highest since mid-December 2019. PNW soybean inspections jumped over 100 percent from the past week as demand from China increased. Mississippi Gulf inspections decreased 22 percent for the same period.

Hopper Barge Sinks on the Mississippi

On Friday, January 17, a 20-barge tow struck a stationary vessel near the Upper Mississippi River mile marker 51.9 (near Cape Girardeau, MO), causing a single hopper barge carrying cement to sink in 60-foot waters. The Coast Guard notified mariners in the area to exercise caution until the barge was located. With 42 feet of water over the barge, it will not present significant challenges to navigation but is being monitored by sonar.

Major Barge Lines in Legal Disputes With NOLA Area Export Elevator Companies

According to *River Transport News* (January 13, 2020 and December 16, 2019 editions), Ingram and American Commercial Barge Lines (ACBL), operators of two of the largest barges fleets, have filed lawsuits against operators of export grain elevators in the New Orleans (NOLA) region. The plaintiffs seek to recover fees—for third-party services related to barge storage and movement within a port—incurred while delivering grain to the elevators. The outcomes of the lawsuits could set important precedents regarding responsibility for third-party charges and whether terms in a bill of lading can be considered contractual. Assignment of responsibility for fees and charges are part of a larger debate in transportation, such as the conversation around detention and demurrage charges in the rail and ocean arenas.

Snapshots by Sector

Export Sales

For the week ending January 9, **unshipped balances** of wheat, corn, and soybeans totaled 21.7 mmt. This represented a 30-percent decrease in outstanding sales, compared to the same time last year. Net **corn export sales** reached 0.785 mmt, up significantly from the past week. Net **soybean export sales** were 0.712 mmt, up significantly from the previous week. Net weekly **wheat export sales** reached 0.651 mmt, up significantly from the previous week.

Rail

U.S. Class I railroads originated 18,304 **grain carloads** during the week ending January 11. This was a 7-percent decrease from the previous week, 26 percent less than last year, and 23 percent lower than the 3-year average.

Average February shuttle **secondary railcar** bids/offers (per car) were $13 below tariff for the week ending January 16. This was $188 more than last week and $92 more than the same week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending January 18, **barge grain movements** totaled 575,414 tons. This was a 10.4-percent increase from the previous week and 2 percent less than the same period last year.

For the week ending January 18, 352 grain barges **moved down river**—27 more than the previous week. There were 621 grain barges **unloaded in New Orleans**, 23 percent fewer than the previous week.

Ocean

For the week ending January 16, 28 **oceangoing grain vessels** were loaded in the Gulf—24.3 percent fewer than same period last year. Within the next 10 days (starting January 17), 48 vessels were expected to be loaded—12.7 percent fewer than the same period last year.

As of January 16, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $46.00. This was 2 percent more than the previous week. The rate from PNW to Japan was $24.75 per mt, 2 percent more than the previous week.

Fuel

For the week ending January 20, the U.S. average **diesel fuel price** decreased 2.7 cents from the previous week to $3.037 per gallon, 7.2 cents above the same week last year.

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Feature Article/Calendar

Takeaways from the 2020 Transportation Research Board Annual Meeting

The Transportation Research Board (TRB) held its 99th annual meeting in Washington, DC, on January 12-16, 2020. The conference was attended by a record-setting 13,900+ policymakers, administrators, researchers, and representatives from government, industry, and academia. With the theme "A Century of Progress: Foundation for the Future," the event featured over 5,000 presentations in nearly 800 sessions. Here, we describe some of the key points from presentations and panel discussions relevant to agricultural transportation.

Agriculture and Food Transportation Committee Meeting

The committee discussed the need for research in several areas, such as export competitiveness, truck size and weight, autonomous vehicles, equipment availability, food deserts and local food availability, blockchain, and the effect of precision scheduled railroading on agriculture supply chains. The committee also expressed a need for agricultural research that dovetailed with areas funded by States' Departments of Transportation to align with their mission. Other issues of concern to shippers included demurrage and detention fees, port congestion, chassis availability, and the low-sulfur fuel mandate. Two ongoing projects were presented by representatives from the U.S. Department of Agriculture (USDA) and U.S. Department of Transportation (DOT). USDA presented the recently inaugurated Open Data Platform, which makes agricultural transportation data more usable, sharable, discoverable and accessible to the public. DOT updated the Committee on its ongoing "Agricultural Highway Freight Infrastructure Strategic Plan" project, which is due to be completed in the fall of 2020. This partnership project—among DOT, the U.S. DOT Volpe Center, USDA, and interested stakeholders—aims to analyze highway infrastructure performance, particularly with respect to transporting agricultural goods.

Inland Waterways Committee Meeting and Lectern Session

The committee discussed a proposal to create federally recognized port districts in the Midwest to coordinate management of terminals on the Mississippi and Illinois Rivers under three new port authorities. Another presentation focused on development of container-on-barge operations between the Port of Virginia and Richmond, including a recent equipment upgrade that allows for refrigerated containers to move on the James River. A U.S. DOT representative discussed the agency's National Freight Strategic Plan, which includes reforming the funding strategy for the U.S. Army Corps of Engineers' waterways projects.

A lectern session featured two presentations that highlighted performance and resiliency measures of the inland waterway system. The first discussed a survey of how State DOTs recorded performance of their inland waterways. The researchers found that a State's volume of waterborne freight traffic did not correlate with the number of measures recorded. Of the five States with the highest tonnages, only Kentucky used more than one measurement, and none issued performance report cards on these metrics. On the other hand, several States with tonnages below the five highest ones used multiple metrics in addition to performance report cards. The second presentation summarized a study that simulated traffic flows in the presence or absence of a river-closing incident. In hypothetical scenarios where tow-size or daylight-only traffic restrictions were enforced, freight traffic was reduced relative to *incident-free* scenarios where such restrictions did not exist. However, the researchers speculated that, in the long term, overall, if these policies helped to avoid incidents, they would result in higher volumes of freight traffic.

Current Research in Agriculture and Food Transportation

Among other topics, this session examined the growth in ethanol production in the United States, its effect on transportation demand, and the resulting rail-truck competition. The key finding was the dominant role of trucks for shorter distances and lesser tonnage. As tonnage increases, trucks are less able

to compete, while rail becomes more competitive. In addition, short line rail expansion increases the ability of rail to compete with trucks locally, while larger truck sizes enhance trucks' ability to compete with rail.

The Future of North American Freight Rail Transportation
This session focused on the role of technology in the future of U.S. railroads. The panel discussed the role new technologies will have in improving safety and optimizing operations, as well as challenges the industry may face in coming years. One speaker described shippers' desire for real-time data to track their shipments' progress as the "Amazon effect." The panel considered the ability of technology to address challenges such as car supply, competitive pricing, capital investment in marginal assets, and the influence of autonomous trucks and truck weights on the competitive landscape for railways. In the face of increased truck competition, railroads will have to improve their service and reliability in order to increase their volumes and market share. Finally, panel members noted the growing concern advanced technology would displace labor and the need to address the issue.

Precision Scheduled Railroading (PSR)
In this session a panel of academic and industry experts examined PSR and discussed what it is, as well as its opportunities and challenges to different stakeholders. Although there is no single definition and each railroad implements PSR differently, one panelist outlined five fundamental principles behind implementing PSR: precision service, cost control, (efficient) asset utilization, safety, and "people" (i.e., railroad employees). Even as PSR has increased railroad returns, lowered costs, and improved asset utilization, challenges remain in implementation. These include a continued loss of carload traffic, tensions over railroads' common carrier obligation, and the need to more fairly transfer some the cost savings to shippers. The panel acknowledged inefficiencies and service failures at yards and terminals, creating a need for better real-time data sharing and planning tools. The panel also discussed the challenge of balancing PSR's rigid operating principles with shippers' continually fluctuating demand for rail transportation. Concerns were also raised over how well railroads will be able to handle unexpected surges in demand without having excess assets.

The next Transportation Research Board meeting will take place in Washington, DC on January 24-28, 2021.

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Grain Transportation Indicators

Table 1

Grain transport cost indicators [1]

	Truck	Rail		Barge	Ocean	
For the week ending		Unit train	Shuttle		Gulf	Pacific
01/22/20	204	n/a	225	185	206	176
01/15/20	206	n/a	204	186	201	172

[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	1/17/2020	1/10/2020
Corn	IL–Gulf	-0.52	-0.55
Corn	NE–Gulf	-0.72	-0.77
Soybean	IA–Gulf	-1.20	-1.17
HRW	KS–Gulf	-2.16	-2.16
HRS	ND–Portland	-2.09	-2.08

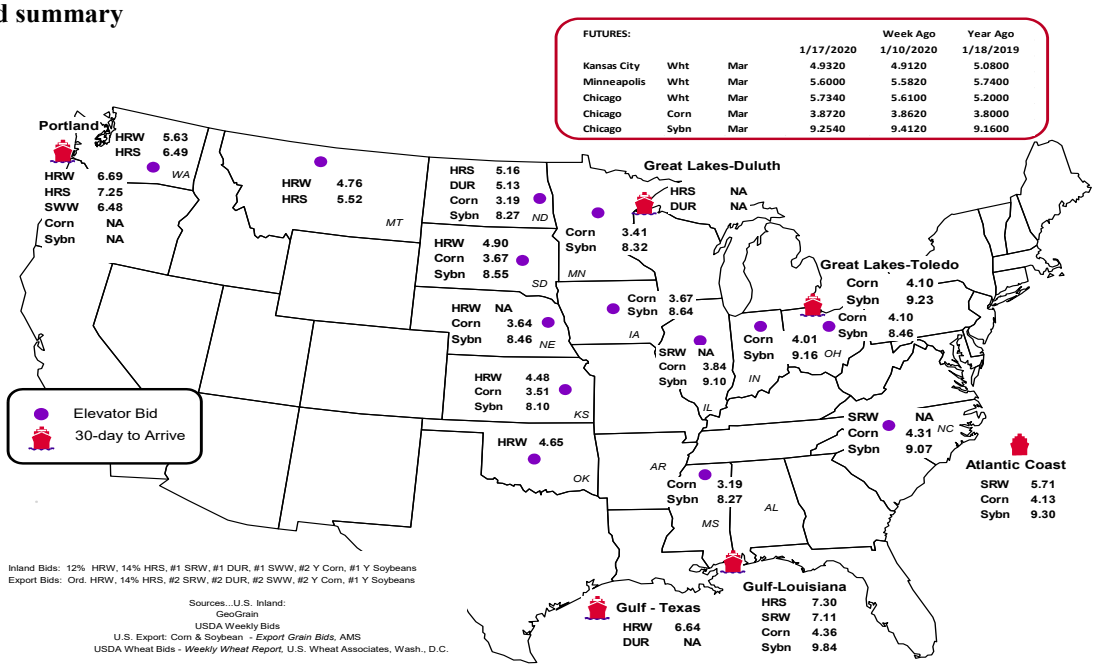
Note: nq = no quote; n/a = not available; HRW = hard red winter wheat; HRS = hard red spring wheat.

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]
1/15/2020[p]	465	496	3,793	130	4,884	1/11/2020	2,323
1/08/2020[r]	767	538	2,988	285	4,578	1/4/2020	2,662
2020 YTD[r]	1,349	1,802	10,603	671	14,425	2020 YTD	4,985
2019 YTD[r]	959	2,140	15,995	1,291	20,385	2019 YTD	6,164
2020 YTD as % of 2019 YTD	141	84	66	52	71	% change YTD	81
Last 4 weeks as % of 2019[2]	153	98	69	43	73	Last 4wks. % 2019	121
Last 4 weeks as % of 4-year avg.[2]	96	51	65	39	63	Last 4wks. % 4 yr.	132
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

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

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

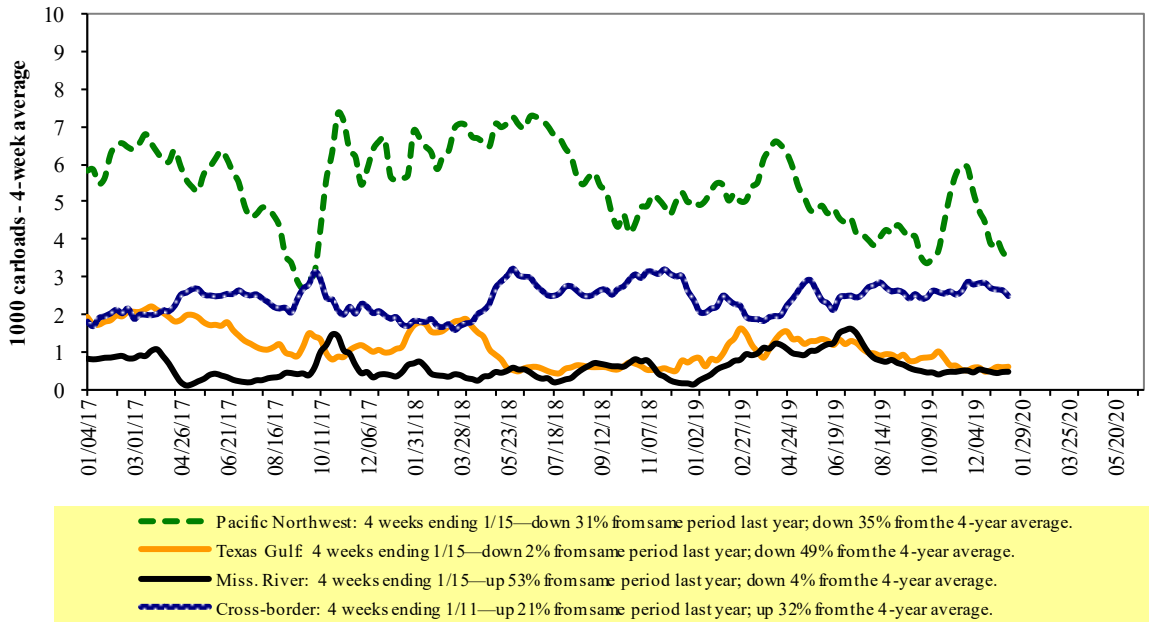
[3] Cross-border weekly data is approximately 15 percent below the Association of American Railroads' reported weekly carloads received by Mexican railroads. to reflect switching between Kansas City Southern de Mexico (KCSM) and Grupo Mexico.

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



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	
1/11/2020	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,659	2,489	9,149	1,238	3,769	18,304	4,215	3,943
This week last year	2,004	3,189	12,337	1,098	6,061	24,689	4,147	3,897
2020 YTD	3,221	5,137	19,393	2,397	7,771	37,919	7,801	7,086
2019 YTD	3,832	6,007	22,775	1,875	10,696	45,185	7,618	7,721
2020 YTD as % of 2019 YTD	84	86	85	128	73	84	102	92
Last 4 weeks as % of 2019*	84	82	86	121	82	86	91	97
Last 4 weeks as % of 3-yr. avg.**	84	88	89	131	80	88	103	97
Total 2019	91,611	137,187	568,369	58,527	260,269	1,115,963	212,664	235,892

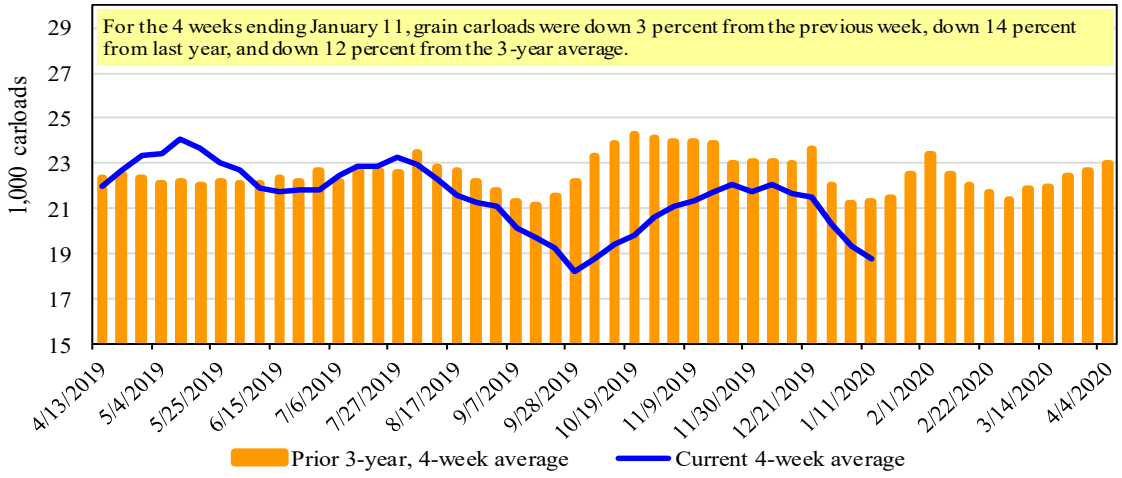
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

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

For the week ending:		Delivery period							
1/16/2020		Feb-20	Feb-19	Mar-20	Mar-19	Apr-20	Apr-19	May-20	May-19
BNSF[3]	COT grain units	0	0	0	0	0	no bids	0	no bids
	COT grain single-car	36	0	0	0	0	0	0	0
UP[4]	GCAS/Region 1	no offer	no bid	no offer	no bid	no offer	no offer	n/a	n/a
	GCAS/Region 2	no bid	no bid	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.

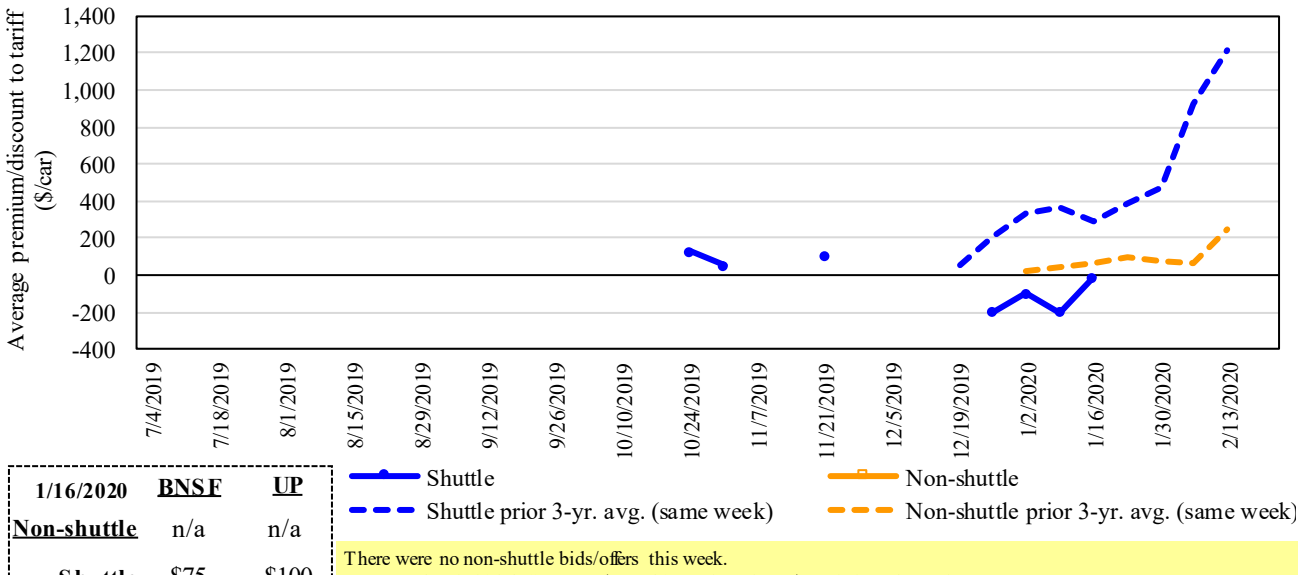
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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 February 2020, secondary market

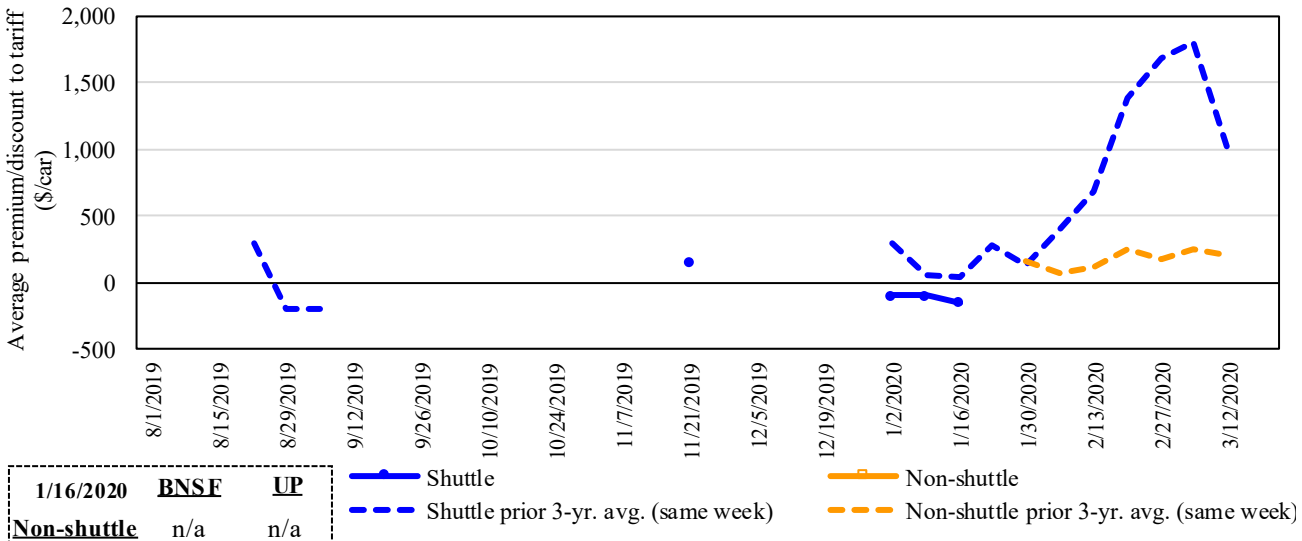


1/16/2020	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$75	-$100

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers rose $188 this week and are $138 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 March 2020, secondary market



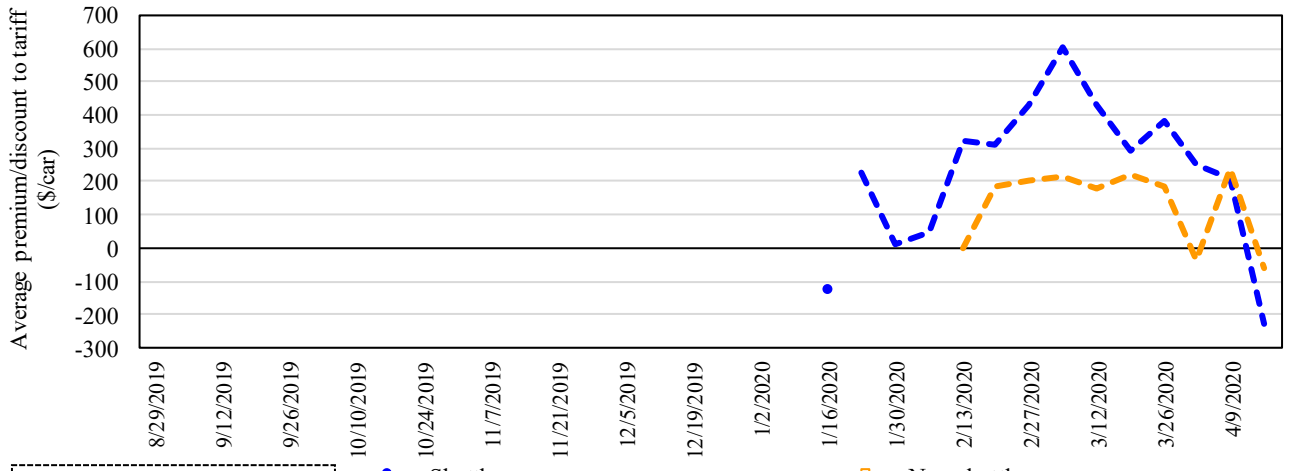
1/16/2020	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	n/a	-$150

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers fell $50 this week and are $300 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 April 2020, secondary market



1/16/2020	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	-$125	n/a

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 at 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: 1/16/2020	Delivery period					
		Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-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 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**	**75**	**n/a**	**(125)**	**n/a**	**n/a**	**n/a**
	Change from last week	375	n/a	n/a	n/a	n/a	n/a
	Change from same week 2019	(42)	n/a	n/a	n/a	n/a	n/a
	UP-Pool	**(100)**	**(150)**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	0	(50)	n/a	n/a	n/a	n/a
	Change from same week 2019	225	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

Date: January 2020							
				Fuel			Percent
	Origin		Tariff	surcharge	Tariff plus surcharge per:		change[4]
Commodity	state	Destination region	rate/car[1]	per car[2]	metric ton[3]	bushel[3]	Y/Y
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.

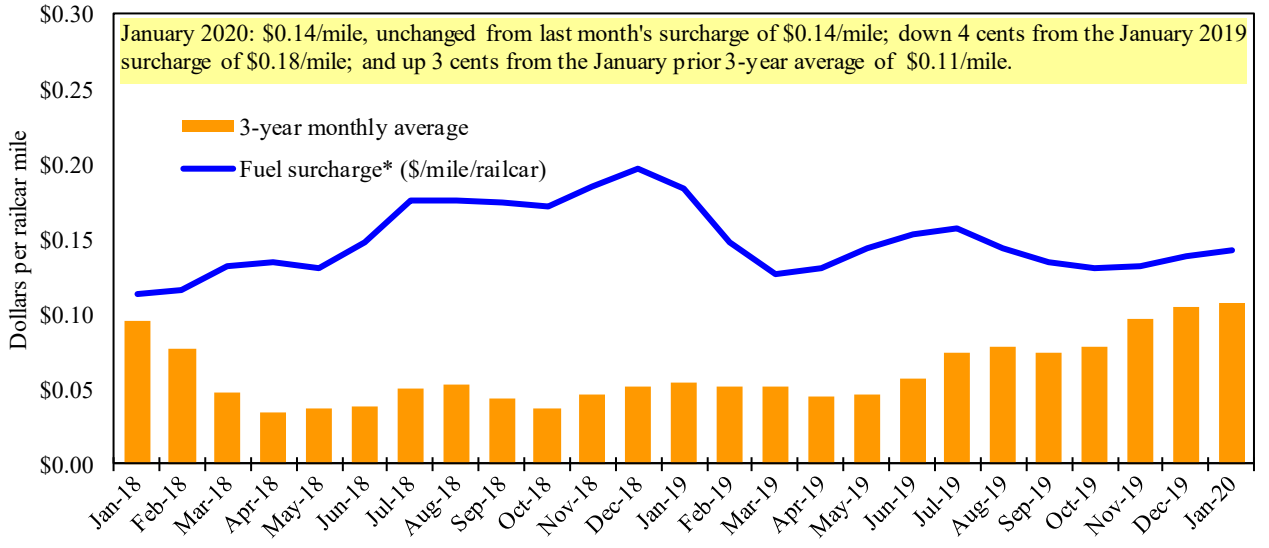
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

[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.

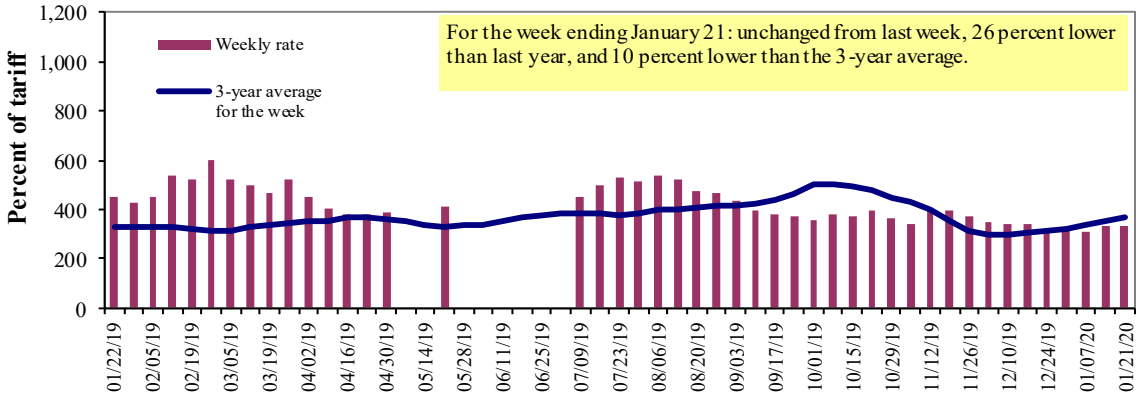
**CSX strike price changed from $2.00/gal. to $3.75/gal. starting January 1, 2015.

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]	1/21/2020	-	-	333	238	256	256	223
	1/14/2020	-	-	334	228	259	259	214
$/ton	1/21/2020	-	-	15.45	9.50	12.01	10.34	7.00
	1/14/2020	-	-	15.50	9.10	12.15	10.46	6.72
Current week % change from the same week:								
	Last year	-	-	-26	-33	-36	-37	-36
	3-year avg. [2]	-	-	-10	-15	-16	-16	-5
Rate[1]	February	-	-	345	235	253	253	221
	April	399	361	340	239	250	250	221

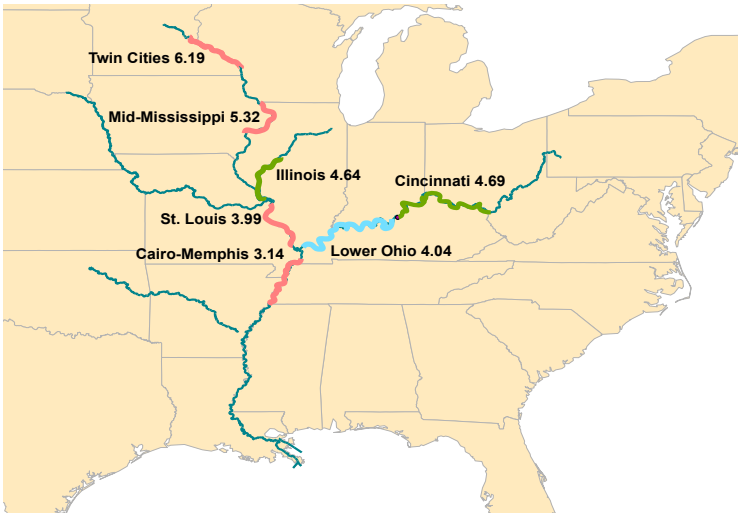
[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-week moving average; ton = 2,000 pounds; "-" not available due to closure

Source: USDA, Agricultural Marketing Service.

Figure 9
Benchmark tariff rates

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

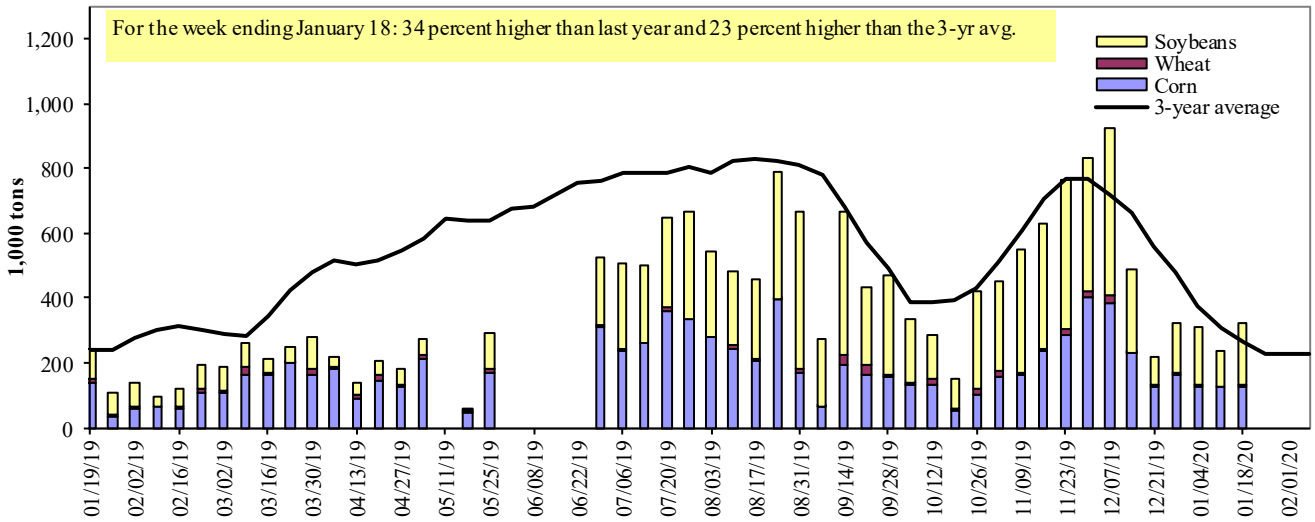
Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map.



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 01/18/2020	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	3	194	0	319
Granite City, IL (L27)	128	3	195	0	326
Illinois River (LAGRANGE)	58	0	102	0	160
Ohio River (OLMSTED)	111	2	117	0	230
Arkansas River (L1)	0	7	13	0	20
Weekly total - 2020	239	12	324	0	575
Weekly total - 2019	262	29	293	2	586
2020 YTD[1]	484	26	586	0	1,097
2019 YTD[1]	753	108	652	2	1,515
2020 as % of 2019 YTD	64	24	90	NA	72
Last 4 weeks as % of 2019[2]	82	53	145	38	106
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.

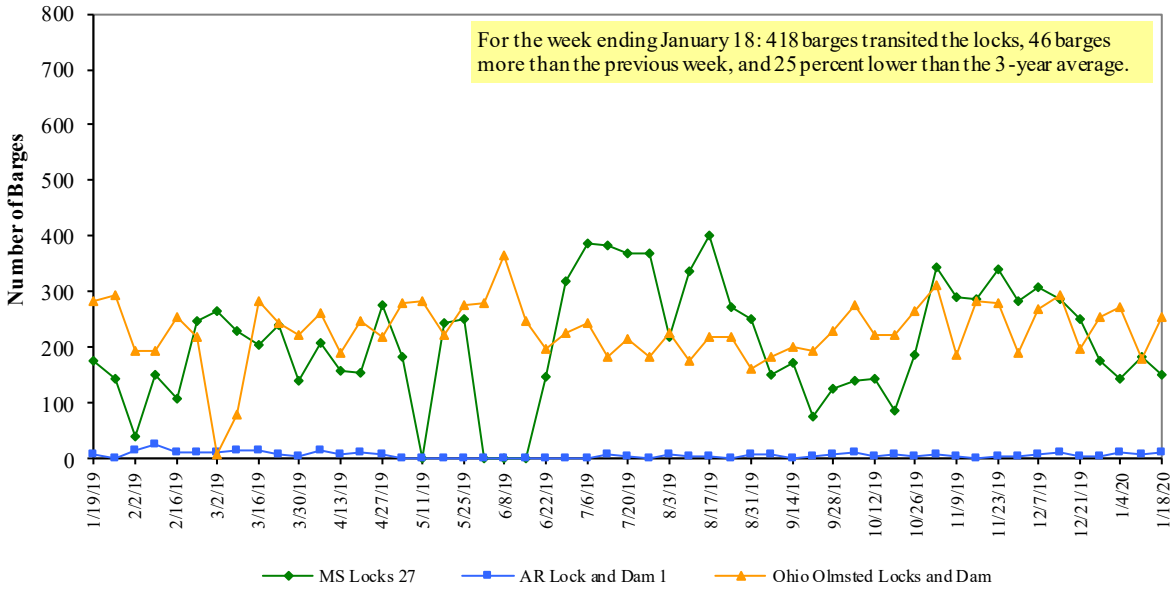
[2] As a percent of same period in 2019.

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

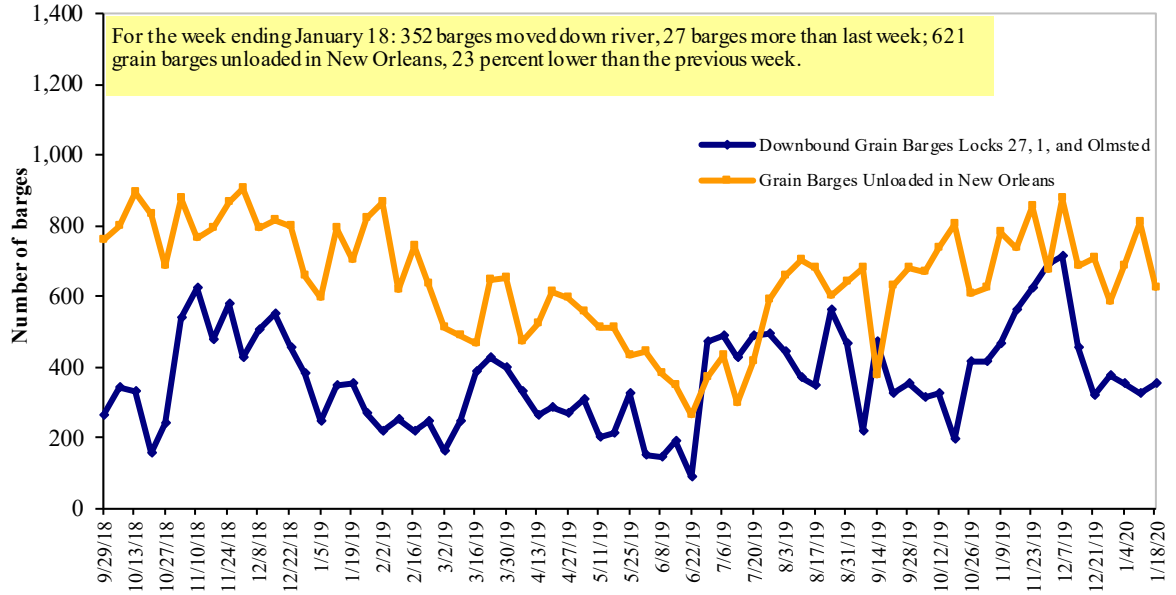
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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 1/20/2020 (U.S. $/gallon)

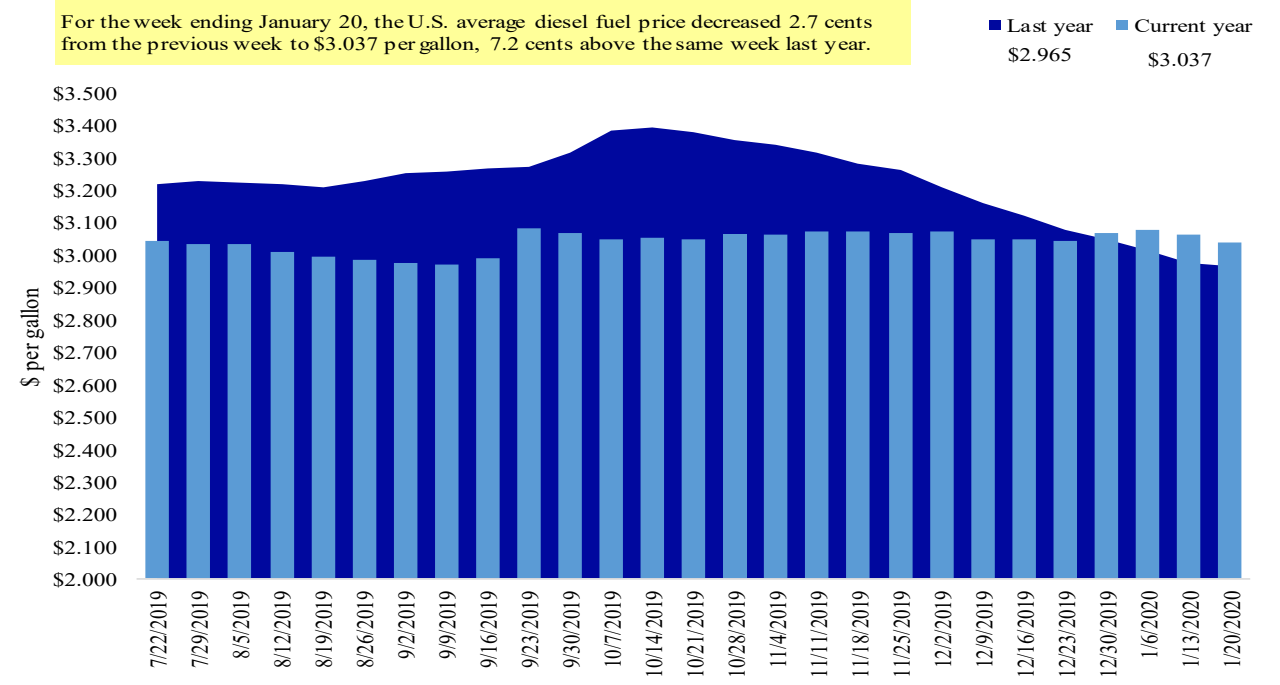
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.075	-0.036	0.038
	New England	3.132	0.001	-0.059
	Central Atlantic	3.248	-0.043	0.033
	Lower Atlantic	2.948	-0.036	0.064
II	Midwest	2.937	-0.028	0.130
III	Gulf Coast	2.797	-0.013	0.007
IV	Rocky Mountain	3.010	-0.055	0.066
V	West Coast	3.574	-0.019	0.111
	West Coast less California	3.206	-0.035	0.091
	California	3.866	-0.006	0.127
Total	U.S.	3.037	-0.027	0.072

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

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

Figure 13

Weekly diesel fuel prices, U.S. average



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

Grain Exports

Table 12

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

	Wheat						Corn	Soybeans	Total
For the week ending	HRW	SRW	HRS	SWW	DUR	All wheat			
Export balances[1]									
1/9/2020	1,538	461	1,383	1,056	187	4,625	9,867	7,241	21,732
This week year ago	1,808	886	1,511	1,167	90	5,463	13,021	12,517	31,001
Cumulative exports-marketing year[2]									
2019/20 YTD	5,612	1,663	4,201	2,860	624	14,960	9,434	23,242	47,637
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	149	120	105	97	189	120	49	130	96
Last 4 wks as % of same period 2018/19	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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 1/9/2020	Total commitments[2]		% change	Exports[3]
	2019/20 current MY	2018/19 last MY	current MY from last MY	3-yr. avg. 2016-18
		- 1,000 mt -		
Mexico	9,061	11,150	(19)	14,659
Japan	3,235	6,366	(49)	11,955
Korea	77	2,300	(97)	4,977
Colombia	1,658	2,151	(23)	4,692
Peru	15	1,469	(99)	2,808
Top 5 Importers	**14,046**	**23,436**	**(40)**	**39,091**
Total U.S. corn export sales	**19,301**	**32,287**	**(40)**	**54,024**
% of projected exports	41%	61%		
Change from prior week[2]	**785**	**0**		
Top 5 importers' share of U.S. corn export sales	73%	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 Agriculltural Service.

Table 14

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

For the week ending 1/9/2020	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	11,388	3,484	227	25,733
Mexico	2,966	4,100	(28)	4,271
Indonesia	1,000	1,163	(14)	2,386
Japan	1,295	1,377	(6)	2,243
Egypt	1,359	1,227	11	1,983
Top 5 importers	**18,008**	**11,350**	**59**	**36,616**
Total U.S. soybean export sales	**30,483**	**30,369**	**0**	**53,746**
% of projected exports	63%	64%		
change from prior week[2]	**712**	**(0)**		
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 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 1/9/2020	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	2,550	2,415	6	3,047
Mexico	2,819	2,213	27	3,034
Japan	1,946	2,166	(10)	2,695
Nigeria	1,114	862	29	1,564
Indonesia	741	692	7	1,381
Korea	1,052	1,134	(7)	1,355
Taiwan	979	812	20	1,164
Egypt	101	391	(74)	821
Thailand	691	790	(13)	747
Iraq	262	414	(37)	574
Top 10 importers	**12,255**	**11,888**	3	**16,382**
Total U.S. wheat export sales	**19,585**	**17,909**	**9**	**24,388**
% of projected exports	74%	70%		
change from prior week[2]	**651**	**0**		
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 01/16/20	Previous week*	Current week as % of previous	2020 YTD*	2019 YTD*	2020 YTD as % of 2019 YTD	Last 4-weeks as % of: Last year	Last 4-weeks as % of: Prior 3-yr. avg.	2019 total*
Pacific Northwest									
Wheat	271	325	83	754	585	129	114	137	13,961
Corn	1	0	n/a	1	624	0	2	2	7,047
Soybeans	279	138	202	631	501	126	140	72	11,969
Total	**550**	**464**	**119**	**1,387**	**1,710**	**81**	**73**	**67**	**32,977**
Mississippi Gulf									
Wheat	79	100	79	244	224	109	94	110	4,448
Corn	209	368	57	967	1,240	78	70	76	20,763
Soybeans	795	923	86	2,462	1,710	144	139	109	31,398
Total	**1,083**	**1,390**	**78**	**3,673**	**3,174**	**116**	**109**	**98**	**56,609**
Texas Gulf									
Wheat	65	133	49	331	228	145	138	124	6,009
Corn	0	0	n/a	22	33	65	161	107	640
Soybeans	0	0	n/a	0	0	n/a	n/a	n/a	2
Total	**65**	**133**	**49**	**352**	**261**	**135**	**141**	**121**	**6,650**
Interior									
Wheat	43	32	132	102	118	87	80	85	1,987
Corn	130	107	122	367	370	99	112	109	7,857
Soybeans	173	137	126	395	274	144	157	150	7,043
Total	**346**	**276**	**125**	**863**	**761**	**113**	**124**	**121**	**16,887**
Great Lakes									
Wheat	0	0	n/a	0	11	0	222	391	1,339
Corn	0	0	n/a	0	0	n/a	n/a	n/a	11
Soybeans	0	0	n/a	0	16	0	124	373	493
Total	**0**	**0**	**n/a**	**0**	**27**	**0**	**164**	**383**	**1,844**
Atlantic									
Wheat	0	0	n/a	0	0	n/a	n/a	n/a	37
Corn	0	0	n/a	0	14	0	0	0	99
Soybeans	16	12	133	77	96	80	83	48	1,353
Total	**16**	**12**	**133**	**77**	**110**	**70**	**73**	**47**	**1,489**
U.S. total from ports*									
Wheat	458	590	78	1,431	1,165	123	113	126	27,781
Corn	340	475	72	1,356	2,281	59	55	60	36,417
Soybeans	1,262	1,210	104	3,565	2,597	137	139	102	52,258
Total	**2,060**	**2,275**	**91**	**6,352**	**6,043**	**105**	**101**	**92**	**116,457**

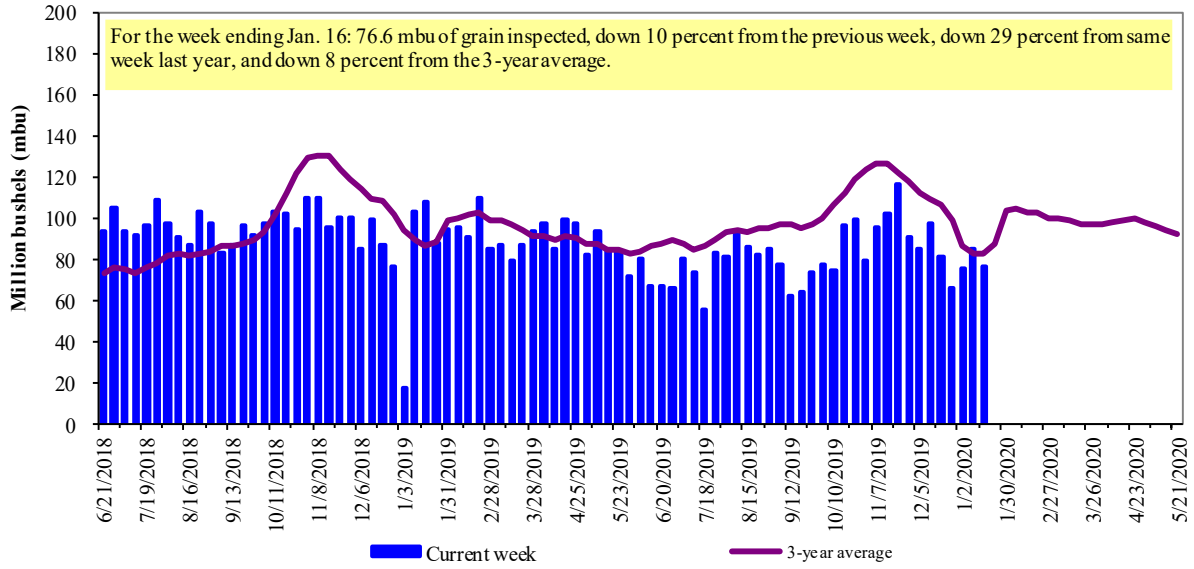
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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)

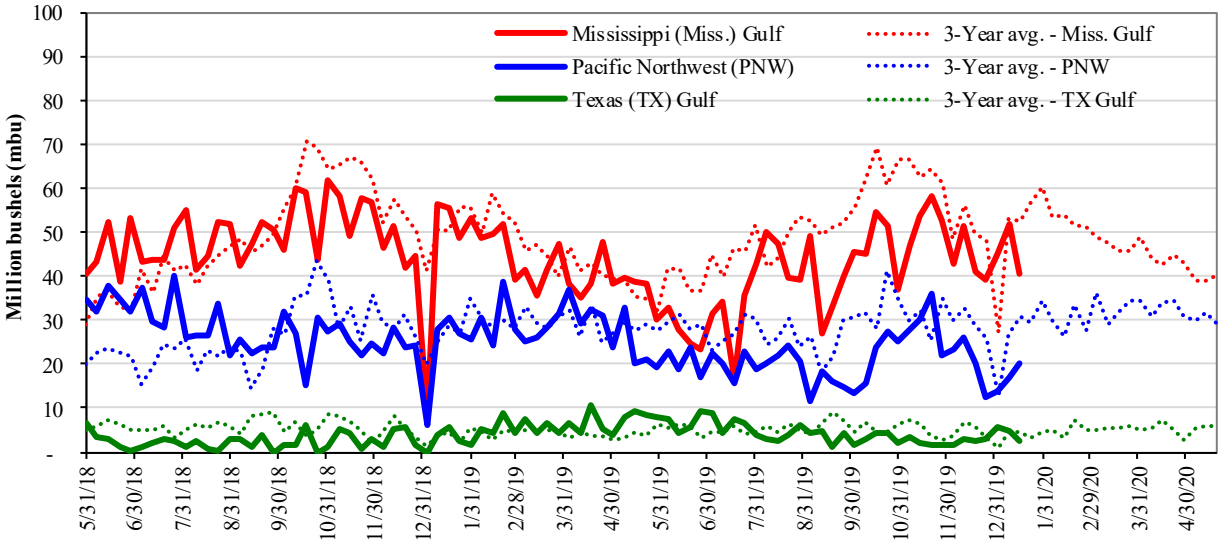


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

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



Week ending 01/16/20 inspections (mbu):	
MS Gulf:	40.3
PNW:	20.2
TX Gulf:	2.4

Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last wk:	down 23	down 51	down 25	up 19
Last Year (same wk):	down 27	down 59	down 30	down 34
3-yr avg. (4-wk. mov. Avg):	down 11	down 26	down 12	down 16

Source: USDA, Federal Grain Inspection Service.

Table 17

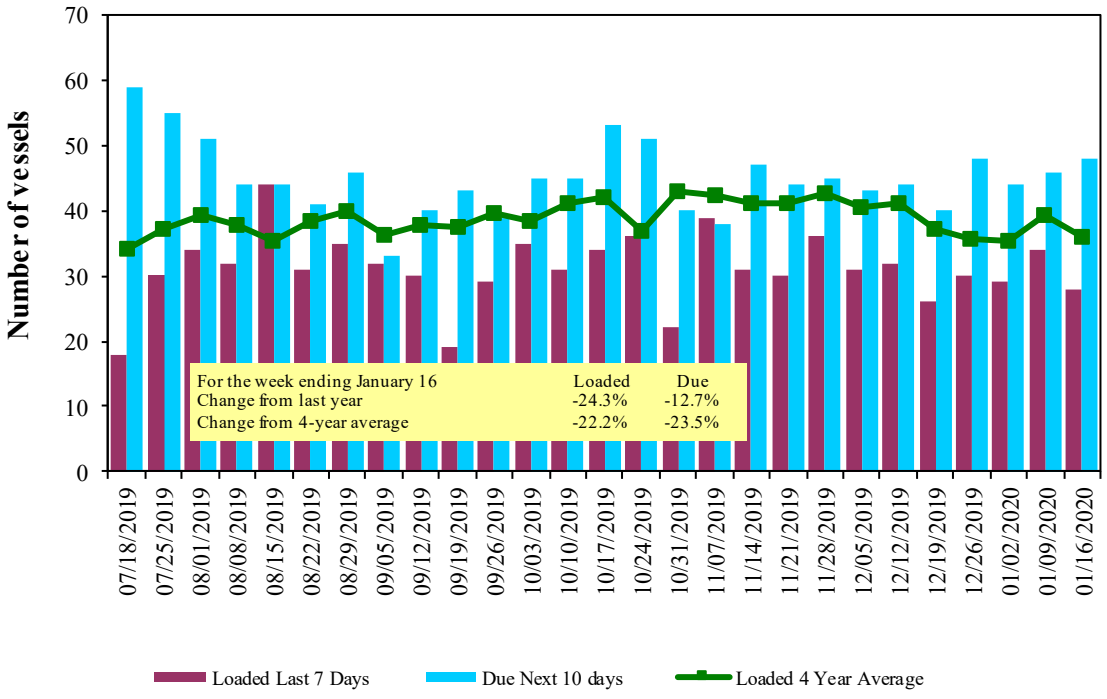
Weekly port region grain ocean vessel activity (number of vessels)

	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
1/16/2020	33	28	48	12
1/9/2020	38	34	46	9
2019 range	(26…61)	(18...44)	(33...69)	(8...33)
2019 average	40	31	49	17

Source: USDA, Agricultural Marketing Service.

Figure 16

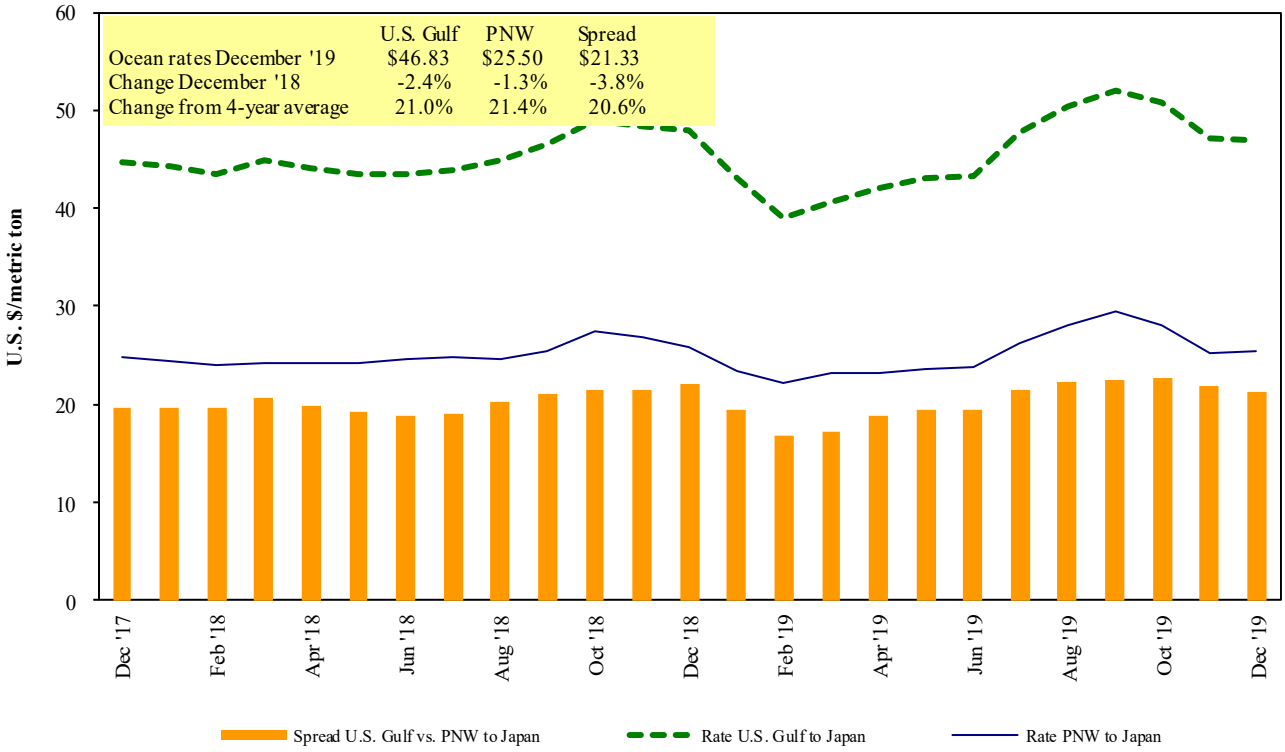
U.S. Gulf[1] vessel loading activity



[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 1/18/2020

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	Jan 25/30	65,000	46.50
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

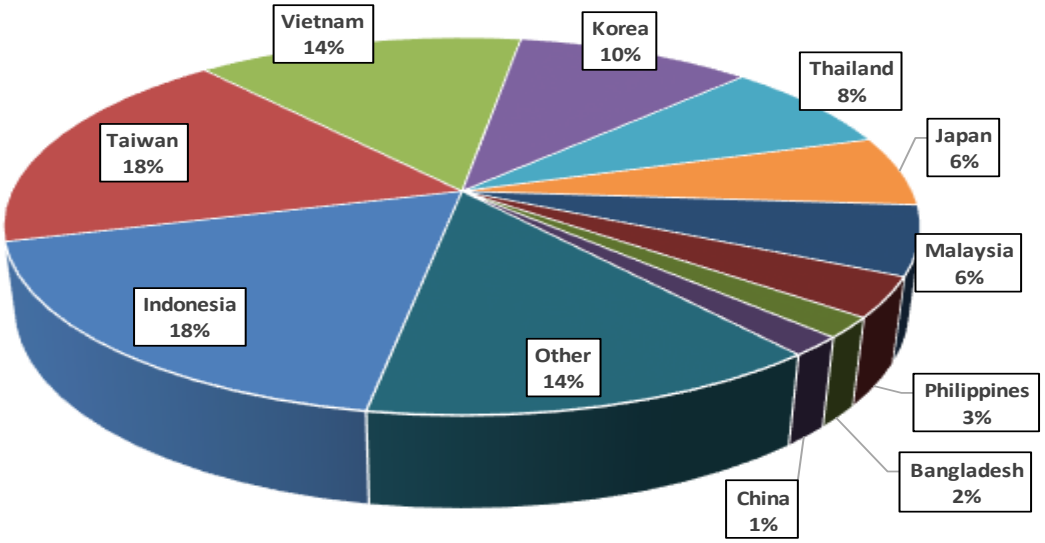
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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.

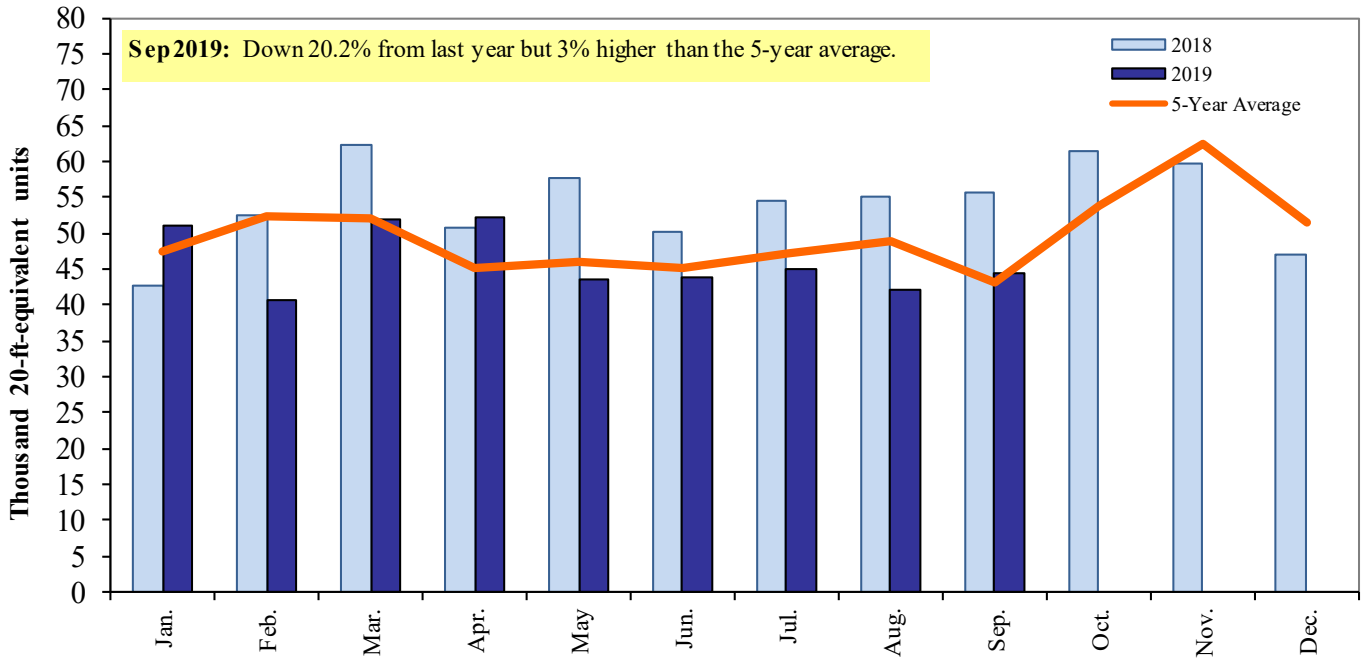
Figure 18
Top 10 destination markets for U.S. containerized grain exports, Jan-Sep 2019



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.

Contacts and Links

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