USDA United States Department of Agriculture

Grain Transportation Report

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WEEKLY HIGHLIGHTS

DOT Launches Regional Infrastructure Acceleration Program

The Department of Transportation (DOT) launched a new demonstration program to expedite delivery of transportation infrastructure projects through innovative finance and delivery methods. DOT's Build America Bureau issued a notice of funding opportunity to designate and fund Regional Infrastructure Accelerators (Accelerators) to serve defined geographic areas and act as a resource to qualified entities within the designated areas. The demo program also aims to show the effectiveness of these Accelerators in expediting the delivery of eligible projects through Federal credit assistance programs, including the Transportation Infrastructure Finance and Innovation Act and other innovative financing methods. A total of $5 million is available for the program.

FMC Commissioners Urge Ocean Carriers To Carry U.S. Exports

On December 16, Federal Maritime Commissioners (FMC) Carl W. Bentzel and Daniel B. Maffei sent a letter to the World Shipping Council (WSC) in support of U.S. exporters. The commissioners shared FMC's growing concerns that—in the face of unprecedented import demand—ocean carriers are refusing to carry U.S. exports. FMC's concerns were in response to reports from U.S. exporters, USDA, and members of Congress. The letter cautioned "in responding to import cargo challenges, ocean carriers should not lose sight of their common carriage obligations to provide service to U.S. exporters." Representing the liner shipping industry, WSC works with policymakers and other industry groups with an interest in international transportation.

FMCSA Extends Emergency Hours-of-Service Waiver for Livestock and Feed

On December 1, the Federal Motor Carrier Safety Administration (FMCSA) extended the waiver on hours-of-service (HOS) requirements for trucks transporting livestock and feed. The waiver is based on the national emergency declared for COVID-19, and the extension is valid through February 28, 2021. The agency also emphasized that the declaration does not empower motor carriers to make truckers haul a load when they say they are tired.

Snapshots by Sector

Export Sales

For the week ending December 24, **unshipped balances** of wheat, corn, and soybeans totaled 53.1 million metric tons (mmt). This was 4 percent lower than last week, but still represented a significant increase in outstanding sales from the same time last year. Net **corn export sales** were 0.965 mmt, up 48 percent from the past week. Net **soybean export sales** were 0.695 mmt, up 97 percent from the previous week. Net **wheat export sales** were 0.521 mmt, up 32 percent from the previous week.

Rail

U.S. Class I railroads originated 21,769 **grain carloads** during the week ending December 26. This was a 16-percent decrease from the previous week, 40 percent more than last year, and 16 percent more than the 3-year average.

Average January shuttle **secondary railcar** bids/offers (per car) were $484 above tariff for the week ending December 31. This was $84 less than last week and $901 more than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending January 2, **barge grain movements** totaled 836,304 tons. This was 17 percent lower than the previous week and 41 percent more than the same period last year.

For the week ending January 2, 517 grain barges **moved down river**—62 barges fewer than the previous week. There were 1,049 grain barges **unloaded in New Orleans**, 14 percent more than the previous week.

Ocean

For the week ending December 31, 40 **oceangoing grain vessels** were loaded in the Gulf—38 percent more than the same period last year. Within the next 10 days (starting January 1, 2021), 66 vessels were expected to be loaded—50 percent more than the same period last year.

As of December 31, 2020, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $42.00. This was unchanged from the last available rate on December 17. The rate from the Pacific Northwest to Japan was $23.75 per mt, unchanged from the last available rate on December 17

Fuel

For the week ending January 4, the U.S. average **diesel fuel price** increased 0.5 cents from the previous week to $2.640 per gallon, 43.9 cents below the same week last year.

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Feature Article/Calendar

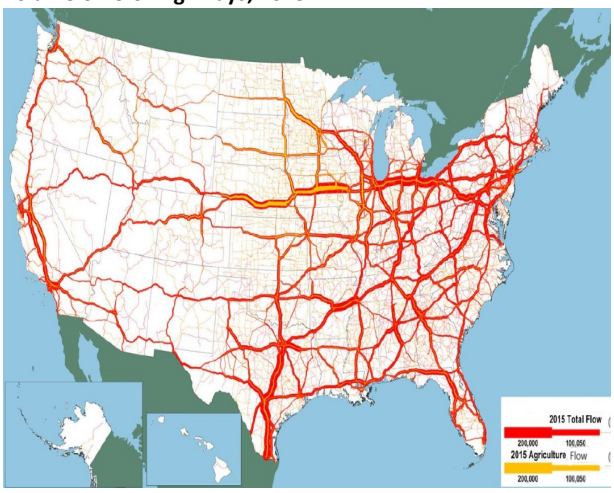
USDA Releases New Report: The Importance of Highways to U.S. Agriculture

On December 17, USDA released a new report titled The Importance of Highways to U.S. Agriculture, *which provides a strategic overview of the challenges and opportunities for moving freight across the Nation's highways.*[1] *This article provides an overview of the report's major content. The full report and a brief summary are available online.*

Highways—the Backbone of Agricultural Transportation

Agricultural products are the single largest user of freight services in the United States across all freight modes. For truck freight, agriculture is by far the largest component of freight by tonnage on a number of major corridors—particularly in the Midwest and California (fig. 1). Overall, trucks accounted for 83 percent of agricultural freight movements by tonnage and 88 percent by market value in 2018. Therefore, maintaining the performance of the highway system is essential to keeping freight costs low and supporting the continued economic competitiveness of U.S. agriculture. This need is all the more pressing because trucks are often the most expensive freight mode on a per ton-mile basis.

Figure 1: Total trucking freight volume vs. agriculture freight volume on U.S. highways, 2015.

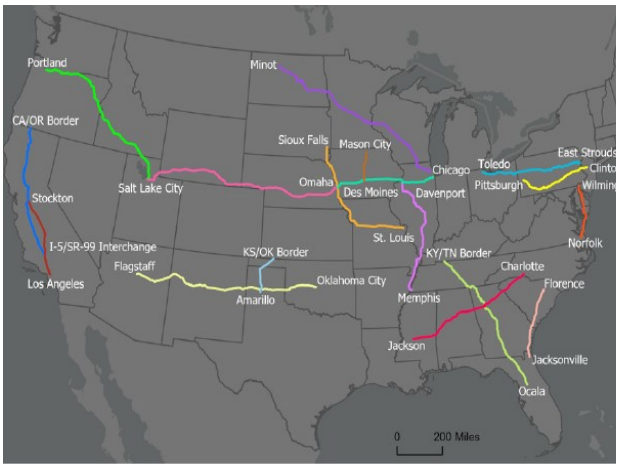


Source: Department of Transportation, Volpe Center; *Freight Analysis Framework, version 4.3 (Bureau of Transportation Statistics (BTS) and FHWA, 2017)*

"High-Volume Domestic Agriculture Highway" Corridors

The report analyzes six categories of agricultural commodities to represent overall agricultural production and commodity flows in the United States. The six major commodity categories sampled are grains, fruits and vegetables, milk, meat, livestock, and poultry. The report identifies 17 high-volume domestic agriculture highway (HDAH) corridors, which carried 80 percent of the tonnage or market value of these six commodity groups. These HDAH corridors represented 17 percent of the lane mileage of the highway network in 2018 (fig. 2).

Figure 2: 17 high-volume domestic agricultural highway (HDAH) corridors studied for the report.



Source: Department of Transportation, Volpe Center.

The HDAH corridors moved roughly 805 million tons of agricultural commodities in 2017 and 2018, representing over $428 billion in market value. The study uses a novel approach to analyze performance challenges on the 17 HDAH corridors and provides detailed descriptions on congestion, reliability, and safety performance

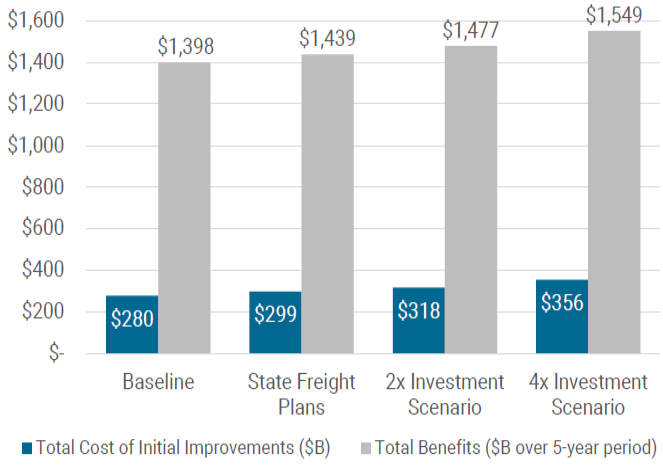
[1] The report was produced under a cooperative agreement administered by USDA's Agricultural Marketing Service (AMS) with the Department of Transportation's (DOT) Volpe National Transportation Systems Center. AMS's Transportation Services Division (TSD) sponsors cooperative research relevant to USDA stakeholders, with a focus on issues affecting all major modes of agricultural transportation—truck, rail, barge, and ocean. Visit our Cooperative Research Summaries page to access the full list of cooperative research reports and summaries.

characteristics for these corridors. State DOTS and local transportation agencies can apply the methodology behind this detailed corridor analysis to investigate other corridors.

Increased Highway Infrastructure Investment Is Highly Cost Effective

According to the study's benefit-cost analysis of alternative highway investment scenarios, the State Freight Plans (SFPs) generate accrued benefits estimated at $40.2 billion over 5 years, versus $19 billion in estimated costs (fig. 3).[1] The resulting benefit-cost ratio is 2.13. These investments are projected to improve 18,705 lane-miles of road and add 1,171 lane-miles. Further, modeled cost-effectiveness declines only slightly when investment levels are doubled or even quadrupled from the SFP levels. This finding suggests many worthy projects could be funded if investment levels increased.

Figure 3: Estimated costs and benefits for alternative highway infrastructure investments.



Source: Department of Transportation, Volpe Center.

In addition, the study finds projects contained in SFP investment plans will reduce delays by improving roadway surface conditions, resulting in savings of over $1 billion/year. The projects will generate $267 million/year in safety benefits and save $540 million/year in trucking costs nationwide. The trucking cost savings would accrue to all trucks, not only trucks carrying agricultural freight. However, as the largest component of highway freight, agriculture will certainly realize substantial benefits.

A Framework for Future Action

The study articulates the necessity of maintaining an efficient and safe highway network to help U.S. agriculture and agriculture shippers remain competitive in the global market. Major contributions include quantifying the economic significance of the roadways to agriculture, identifying key issues facing U.S. agricultural freight movements by truck, analyzing current and future freight flows, and identifying infrastructure investment gaps.

By serving as a practical and actionable reference guide, this study provides a framework for State-level DOTs, regional-planning entities, and private sector shippers to account for and communicate agriculture's highway planning needs. This framework will inform future research, planning, and policy analysis for agricultural highway freight movements.

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[1] The National Highway Freight Program (NHFP) created by the Fixing America's Surface Transportation (FAST) Act provides long-term funding sources for surface transportation infrastructure planning and investment. To access NHFP and other funds, State DOTs must develop and implement State Freight Plans (SFPs), which describe all of States' short- and long-term activities and investments related to freight infrastructure. From SFPs published in December 2019, the study selected and aggregated particular projects from various States, based on whether the study could model them. State DOTS can modify SFPs at any time, and the study's selected projects may or may not be funded, either currently or in the future. The $40.2 billion is the difference between the benefits of the SFP and the baseline scenarios—that is, the difference between $1.439 trillion and $1.398 trillion. The accrued cost ($19 billion) is the difference between $299 billion and $280 billion, the baseline cost.

Grain Transportation Indicators

Table 1

Grain transport cost indicators[1]

	Truck	Rail		Barge	Ocean	
For the week ending		Unit train	Shuttle		Gulf	Pacific
01/06/21	177	310	241	232	188	168
12/30/20	177	288	245	232	n/a	n/a

[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)

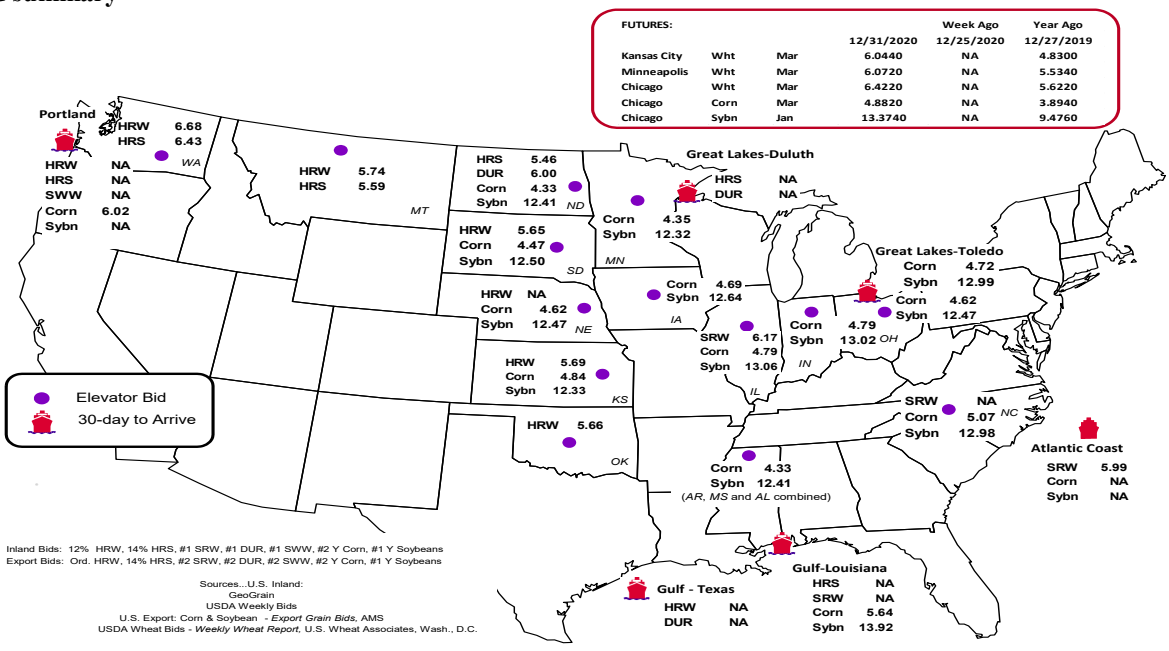
Commodity	Origin–destination	12/31/2020	12/25/2020
Corn	IL–Gulf	-0.85	n/a
Corn	NE–Gulf	-1.02	n/a
Soybean	IA–Gulf	-1.28	n/a
HRW	KS–Gulf	n/a	n/a
HRS	ND–Portland	n/a	n/a

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]
12/30/2020[p]	1,059	1,455	6,886	592	9,992	12/26/2020	2,422
12/23/2020[r]	1,935	1,801	8,626	747	13,109	12/19/2020	2,385
2020 YTD[r]	45,294	64,116	299,774	23,975	433,159	2020 YTD	126,407
2019 YTD[r]	41,091	51,935	255,003	16,448	364,477	2019 YTD	129,633
2020 YTD as % of 2019 YTD	110	123	118	146	119	% change YTD	98
Last 4 weeks as % of 2019[2]	431	308	197	449	237	Last 4wks. % 2019	85
Last 4 weeks as % of 4-year avg.[2]	435	162	149	195	170	Last 4wks. % 4 yr.	105
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.

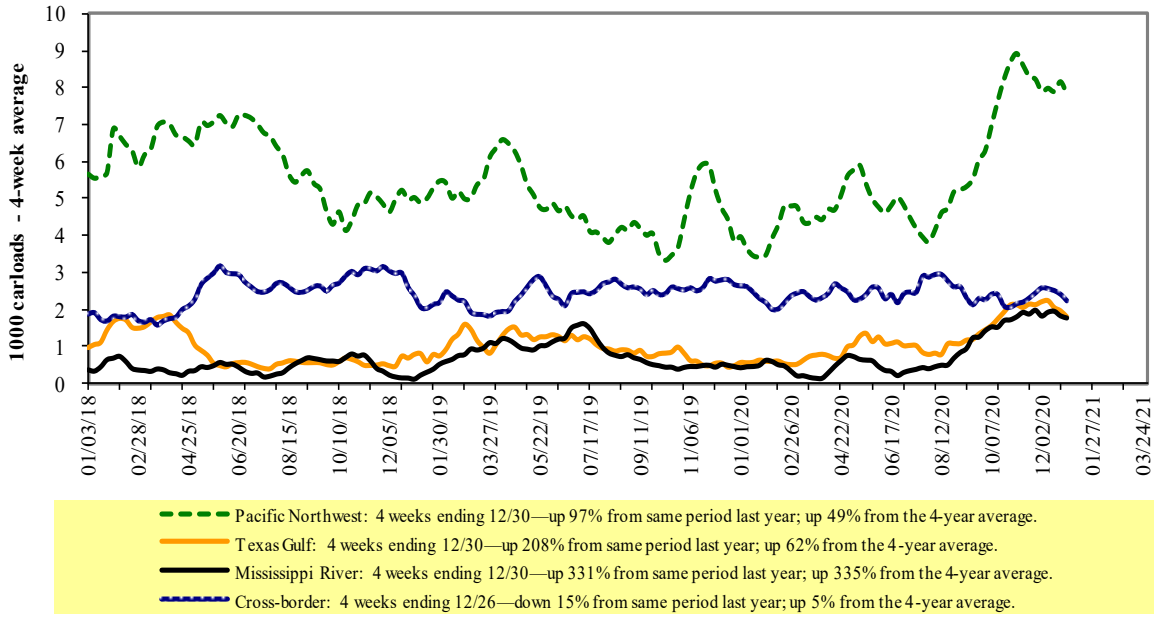
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available; wks. = weeks; avg. = average.

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	
12/26/2020	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,193	1,953	11,722	840	6,061	21,769	3,790	4,253
This week last year	992	1,852	7,764	638	4,281	15,527	2,650	3,127
2020 YTD	89,698	128,600	601,029	56,783	289,801	1,165,911	234,092	256,829
2019 YTD	91,611	136,936	568,369	58,527	260,269	1,115,712	212,304	235,892
2020 YTD as % of 2019 YTD	98	94	106	97	111	104	110	109
Last 4 weeks as % of 2019*	132	114	124	104	150	128	120	127
Last 4 weeks as % of 3-yr. avg.**	118	103	113	105	141	118	131	123
Total 2019	91,611	136,936	568,369	58,527	260,269	1,115,712	212,304	235,892

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

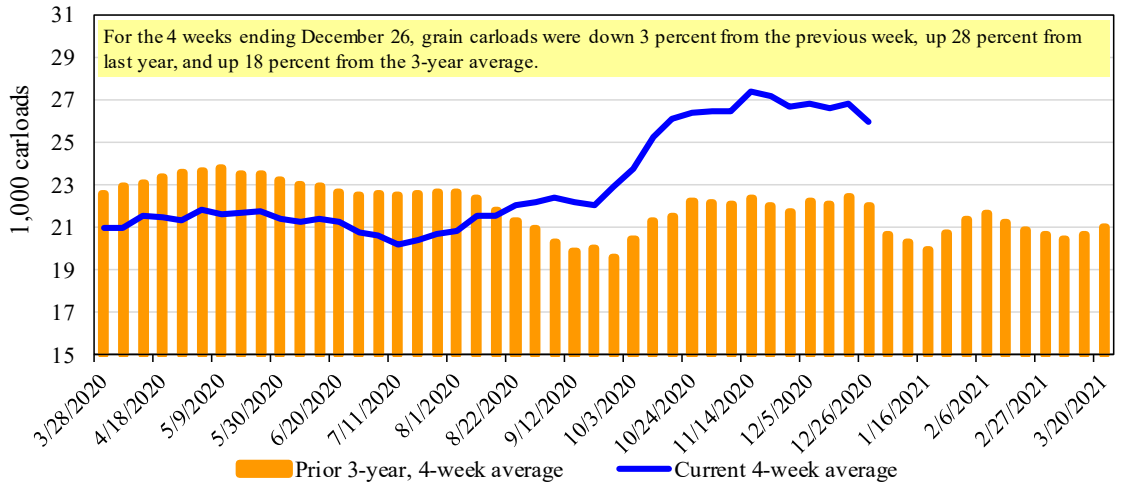
**The past 4 weeks as a percent of the same period from the prior 3-year average. YTD = year-to-date; avg. = average; yr. = year.

Note: NS = Norfolk Southern; KCS = Kansas City Southern; UP = Union Pacific; CN = Canadian National; CP = Canadian Pacific.

Source: Association of American Railroads.

Figure 3

Total weekly U.S. Class I railroad grain carloads



Source: Association of American Railroads.

Table 5

Railcar auction offerings[1] ($/car)[2]

For the week ending:		Delivery period							
12/31/2020		Jan-21	Jan-20	Feb-21	Feb-20	Mar-21	Mar-20	Apr-21	Apr-20
BNSF[3]	COT grain units	0	n/a	no bids	n/a	no bids	n/a	no bids	n/a
	COT grain single-car	0	n/a	93	n/a	0	n/a	0	n/a
UP[4]	GCAS/Region 1	no offer	no bid	no offer	no offer	no offer	no offer	n/a	n/a
	GCAS/Region 2	no offer	no bid	no offer	no bid	no offer	no bid	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 = BNSF Railway Certificate of Transportation; north grain and south grain bids were combined effective the week ending 6/24/06.

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

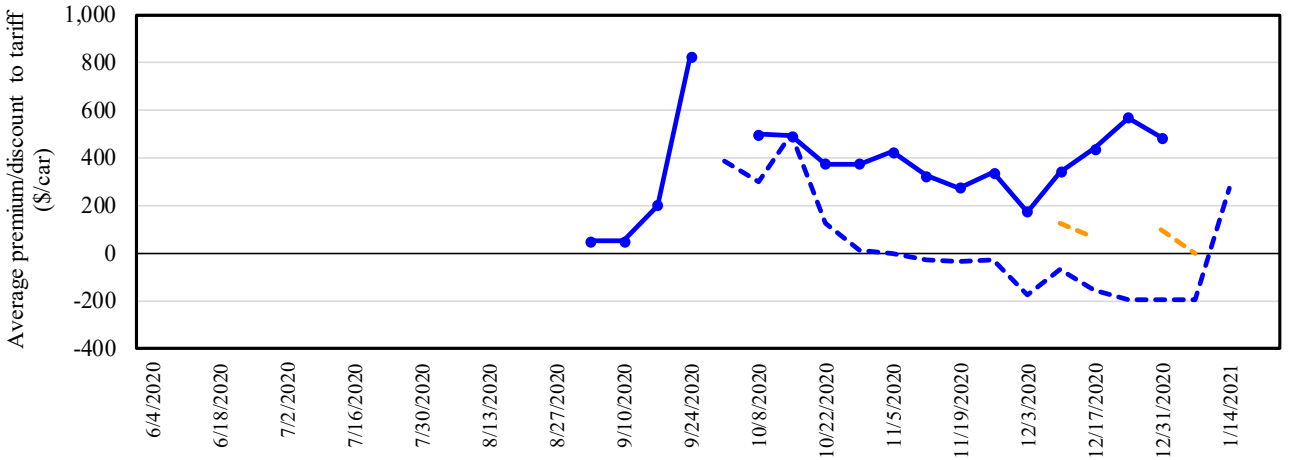
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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

Source: USDA, Agricultural Marketing Service.

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

Figure 4
Bids/offers for railcars to be delivered in January 2021, secondary market

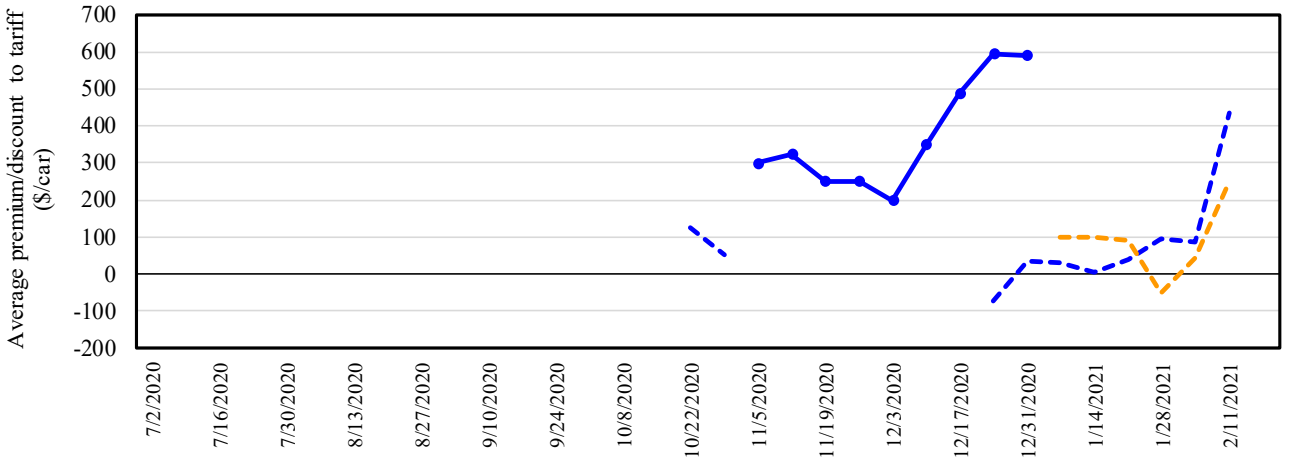


12/31/2020	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$400	$569

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers fell $84 this week and are $341 below the peak.

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

Figure 5
Bids/offers for railcars to be delivered in February 2021, secondary market



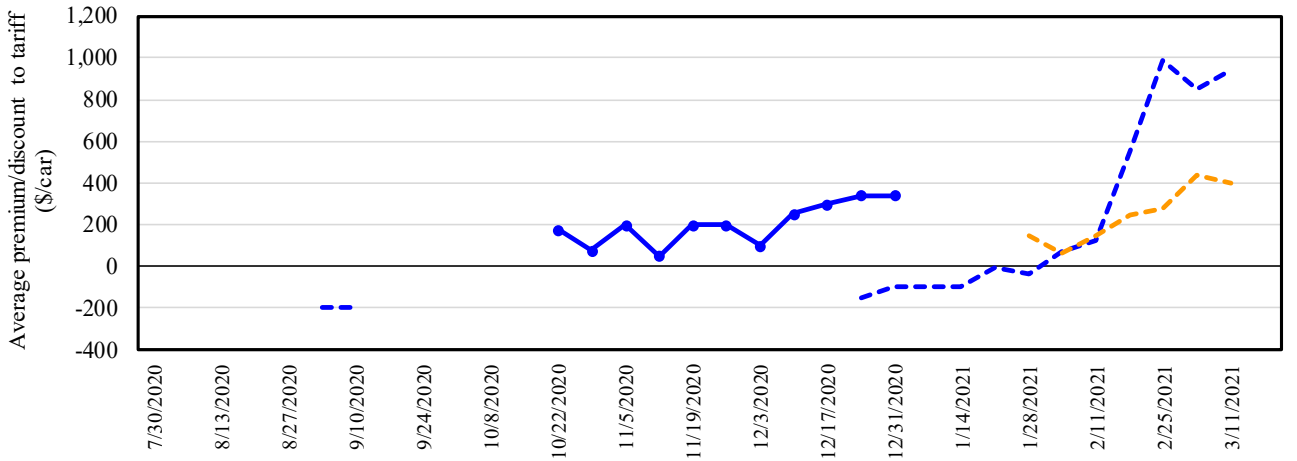
12/31/2020	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$681	$500

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers fell $3 this week and are $3 below the peak.

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

Figure 6

Bids/offers for railcars to be delivered in March 2021, secondary market



12/31/2020	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$381	$300

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers are unchanged this week and are at the peak.

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

Table 6

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

	For the week ending: 12/31/2020	Delivery period					
		Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
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**	**400**	**681**	**381**	**156**	**(25)**	**(25)**
	Change from last week	(169)	(7)	0	(19)	25	0
	Change from same week 2019	858	n/a	n/a	n/a	n/a	n/a
	UP-Pool	**569**	**500**	**300**	**8**	**n/a**	**n/a**
	Change from last week	2	0	0	0	n/a	n/a
	Change from same week 2019	944	600	400	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; BNSF = BNSF Railway; UP = Union Pacific Railroad.

Data from James B. Joiner Co., Tradewest Brokerage Co.

Source: USDA, Agricultural Marketing Service.

The **tariff rail rate** is the base price of freight rail service. Together with **fuel surcharges** and any **auction and secondary rail** values, the tariff rail rate constitutes the full cost of shipping by rail. Typically, auction and secondary rail values are a small fraction of the full cost of shipping by rail relative to the tariff rate. However, during times of high rail demand or short supply, high auction and secondary rail values can exceed the cost of the tariff rate plus fuel surcharge.

Table 7

Tariff rail rates for unit and shuttle train shipments[1]

January 2021	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	$35	$39.90	$1.09	-2
	Grand Forks, ND	Duluth-Superior, MN	$4,208	$0	$41.79	$1.14	-3
	Wichita, KS	Los Angeles, CA	$7,115	$0	$70.66	$1.92	-2
	Wichita, KS	New Orleans, LA	$4,525	$62	$45.55	$1.24	-2
	Sioux Falls, SD	Galveston-Houston, TX	$6,851	$0	$68.03	$1.85	-2
	Colby, KS	Galveston-Houston, TX	$4,801	$68	$48.35	$1.32	-3
	Amarillo, TX	Los Angeles, CA	$5,121	$95	$51.80	$1.41	-3
Corn	Champaign-Urbana, IL	New Orleans, LA	$3,900	$70	$39.43	$1.00	-3
	Toledo, OH	Raleigh, NC	$7,833	$0	$77.79	$1.98	15
	Des Moines, IA	Davenport, IA	$2,455	$15	$24.53	$0.62	1
	Indianapolis, IN	Atlanta, GA	$5,979	$0	$59.37	$1.51	3
	Indianapolis, IN	Knoxville, TN	$5,040	$0	$50.05	$1.27	3
	Des Moines, IA	Little Rock, AR	$3,900	$44	$39.16	$0.99	0
	Des Moines, IA	Los Angeles, CA	$5,780	$128	$58.67	$1.49	-2
Soybeans	Minneapolis, MN	New Orleans, LA	$5,771	$37	$57.68	$1.57	52
	Toledo, OH	Huntsville, AL	$6,595	$0	$65.49	$1.78	17
	Indianapolis, IN	Raleigh, NC	$7,125	$0	$70.75	$1.93	3
	Indianapolis, IN	Huntsville, AL	$5,247	$0	$52.11	$1.42	3
	Champaign-Urbana, IL	New Orleans, LA	$4,645	$70	$46.83	$1.27	-3
Shuttle train							
Wheat	Great Falls, MT	Portland, OR	$4,018	$0	$39.90	$1.09	-3
	Wichita, KS	Galveston-Houston, TX	$4,236	$0	$42.07	$1.14	-3
	Chicago, IL	Albany, NY	$6,376	$0	$63.32	$1.72	-10
	Grand Forks, ND	Portland, OR	$5,676	$0	$56.37	$1.53	-2
	Grand Forks, ND	Galveston-Houston, TX	$5,996	$0	$59.54	$1.62	-2
	Colby, KS	Portland, OR	$6,012	$112	$60.81	$1.66	-3
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	$70	$38.63	$0.98	-3
	Lincoln, NE	Galveston-Houston, TX	$3,880	$0	$38.53	$0.98	0
	Des Moines, IA	Amarillo, TX	$4,320	$55	$43.45	$1.10	0
	Minneapolis, MN	Tacoma, WA	$5,180	$0	$51.44	$1.31	0
	Council Bluffs, IA	Stockton, CA	$5,100	$0	$50.65	$1.29	2
Soybeans	Sioux Falls, SD	Tacoma, WA	$5,850	$0	$58.09	$1.58	0
	Minneapolis, MN	Portland, OR	$5,900	$0	$58.59	$1.59	0
	Fargo, ND	Tacoma, WA	$5,750	$0	$57.10	$1.55	0
	Council Bluffs, IA	New Orleans, LA	$4,875	$81	$49.22	$1.34	-3
	Toledo, OH	Huntsville, AL	$4,945	$0	$49.11	$1.34	3
	Grand Island, NE	Portland, OR	$5,260	$115	$53.37	$1.45	-13

[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 2021							
	Origin		Tariff rate	Fuel surcharge	Tariff rate plus fuel surcharge per:		Percent change[4]
Commodity	state	Destination region	per car[1]	per car[2]	metric ton[3]	bushel[3]	Y/Y
Wheat	MT	Chihuahua, CI	$7,384	$0	$75.45	$2.05	-2
	OK	Cuautitlan, EM	$6,713	$49	$69.08	$1.88	-2
	KS	Guadalajara, JA	$7,471	$449	$80.93	$2.20	-3
	TX	Salinas Victoria, NL	$4,347	$29	$44.72	$1.22	-1
Corn	IA	Guadalajara, JA	$8,902	$358	$94.62	$2.40	-2
	SD	Celaya, GJ	$8,140	$0	$83.17	$2.11	0
	NE	Queretaro, QA	$8,300	$99	$85.82	$2.18	-2
	SD	Salinas Victoria, NL	$6,905	$0	$70.55	$1.79	0
	MO	Tlalnepantla, EM	$7,665	$97	$79.30	$2.01	-2
	SD	Torreon, CU	$7,690	$0	$78.57	$1.99	0
Soybeans	MO	Bojay (Tula), HG	$8,547	$338	$90.78	$2.47	-2
	NE	Guadalajara, JA	$9,157	$347	$97.10	$2.64	-2
	IA	El Castillo, JA	$9,410	$0	$96.15	$2.61	-1
	KS	Torreon, CU	$8,014	$228	$84.21	$2.29	-1
Sorghum	NE	Celaya, GJ	$7,772	$308	$82.56	$2.10	-2
	KS	Queretaro, QA	$8,108	$61	$83.46	$2.12	-1
	NE	Salinas Victoria, NL	$6,713	$49	$69.09	$1.75	-1
	NE	Torreon, CU	$7,092	$201	$74.52	$1.89	-3

[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.

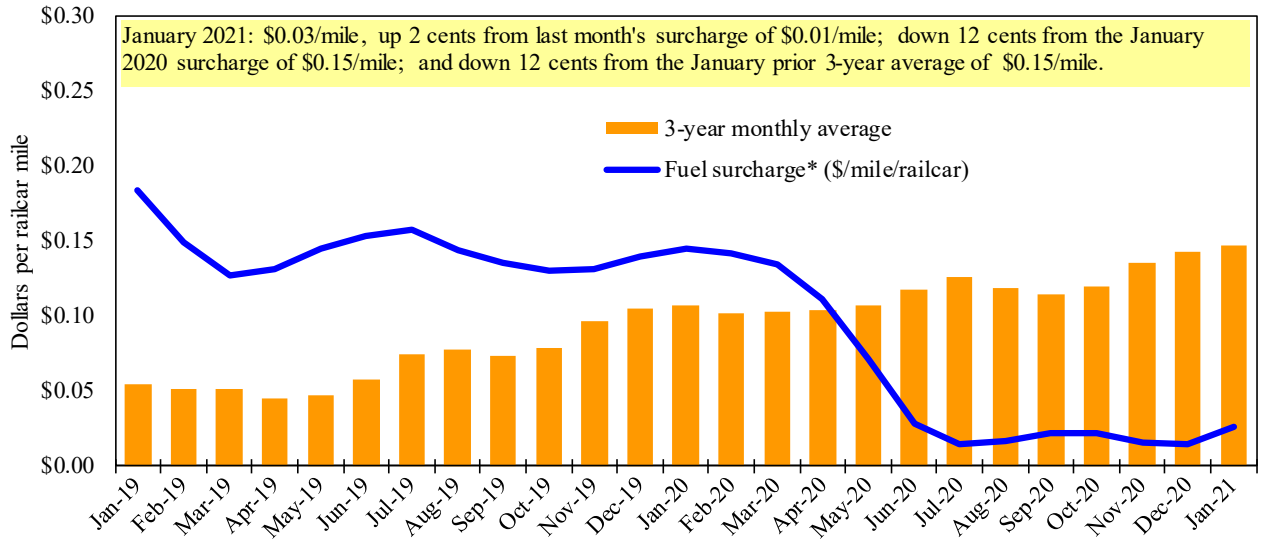
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

[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.

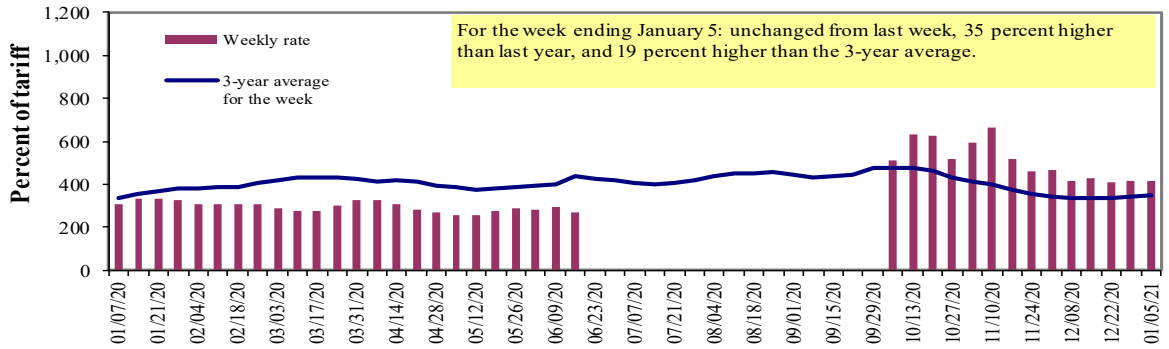
* Beginning January 2009, the Canadian Pacific fuel surcharge is computed by a monthly average of the bi-weekly fuel surcharge.

**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 Railway, Union Pacific Railroad, Kansas City Southern Railway, Norfolk Southern Corporation.

Barge Transportation

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



[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-week moving average of the 3-year average.
[3]No rates data from 06/23/20 to 9/29/20 due to the lock closure for rehabilitation and replacement of lock machinery.
Source: USDA, Agricultural Marketing Service.

Table 9
Weekly barge freight rates: Southbound only

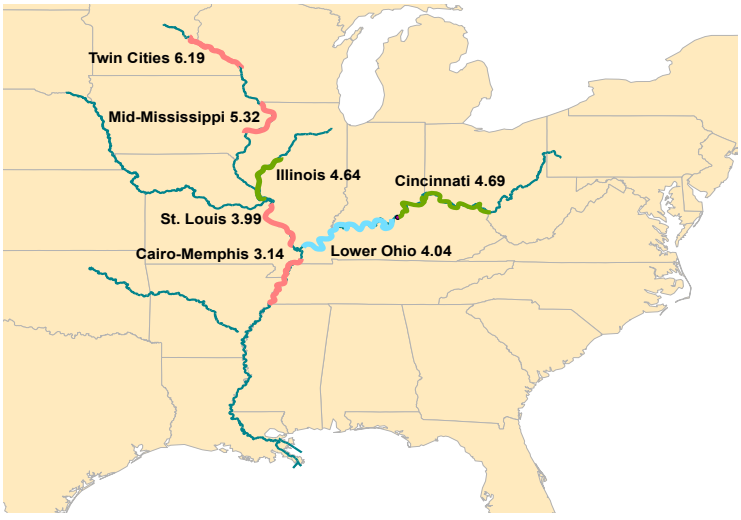
		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate[1]	1/5/2021	-	-	418	304	345	345	269
	12/29/2020	-	-	418	323	348	348	278
$/ton	1/5/2021	-	-	19.40	12.13	16.18	13.94	8.45
	12/29/2020	-	-	19.40	12.89	16.32	14.06	8.73
Current week % change from the same week:								
	Last year	-	-	35	39	46	46	27
	3-year avg. [2]	-	-	19	18	16	16	19
Rate[1]	February	-	-	409	288	324	324	260
	April	-	-	358	260	284	284	241

[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

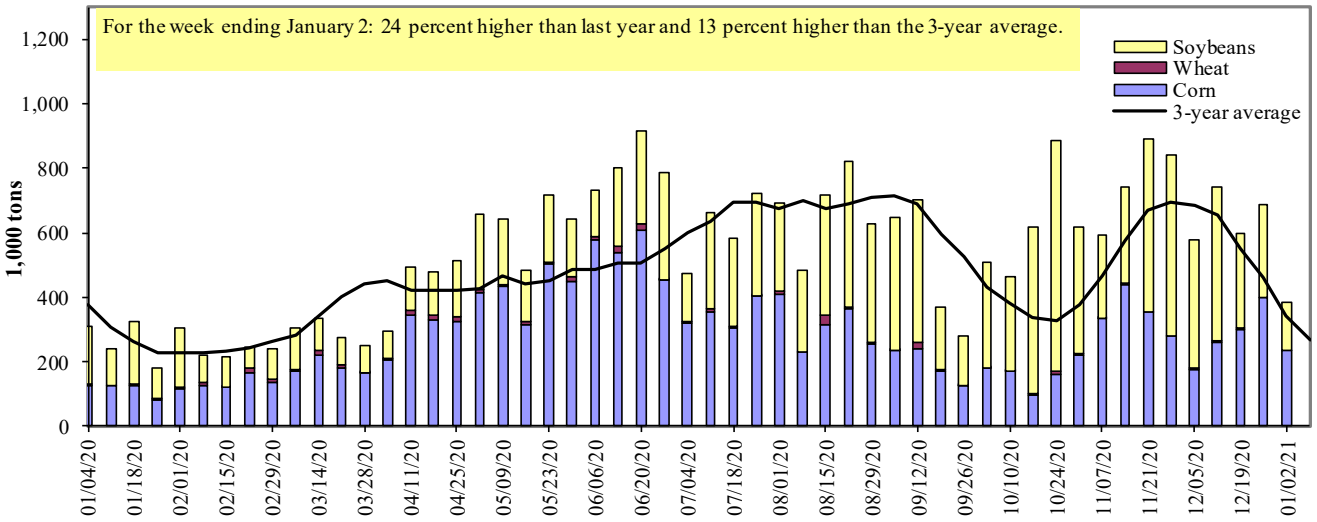
Select applicable index from market quotes are included in tables on this page. The 1976 benchmark rates per ton are provided in map.



Map Credit: USDA, Agricultural Marketing Service

Figure 10

Barge movements on the Mississippi 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 01/02/2021	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	0	0	0	0	0
Winfield, MO (L25)	14	0	6	0	20
Alton, IL (L26)	214	0	145	0	359
Granite City, IL (L27)	237	0	148	0	385
Illinois River (La Grange)	189	0	132	0	321
Ohio River (Olmsted)	190	4	214	0	408
Arkansas River (L1)	0	8	35	0	43
Weekly total - 2020	427	12	398	0	836
Weekly total - 2019	247	15	330	2	595
2020 YTD[1]	18,942	1,764	19,205	237	40,149
2019 YTD[1]	12,780	1,631	14,683	154	29,247
2020 as % of 2019 YTD	148	108	131	154	137
Last 4 weeks as % of 2019[2]	206	53	160	148	171
Total 2019	12,780	1,631	14,683	154	29,247

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

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

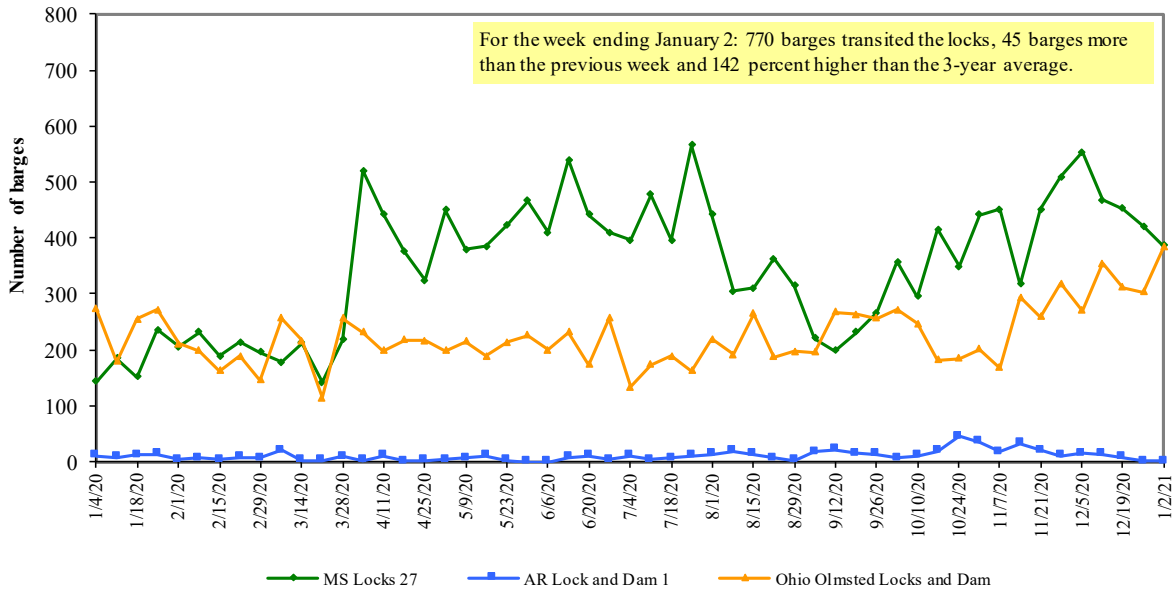
Note: 1. This week's 2019 weekly total reflects week 52 total (same from last week) due to the end-of-year adjsutment.

2. Total may not add exactly due to rounding.

Source: U.S. Army Corps of Engineers.

Figure 11

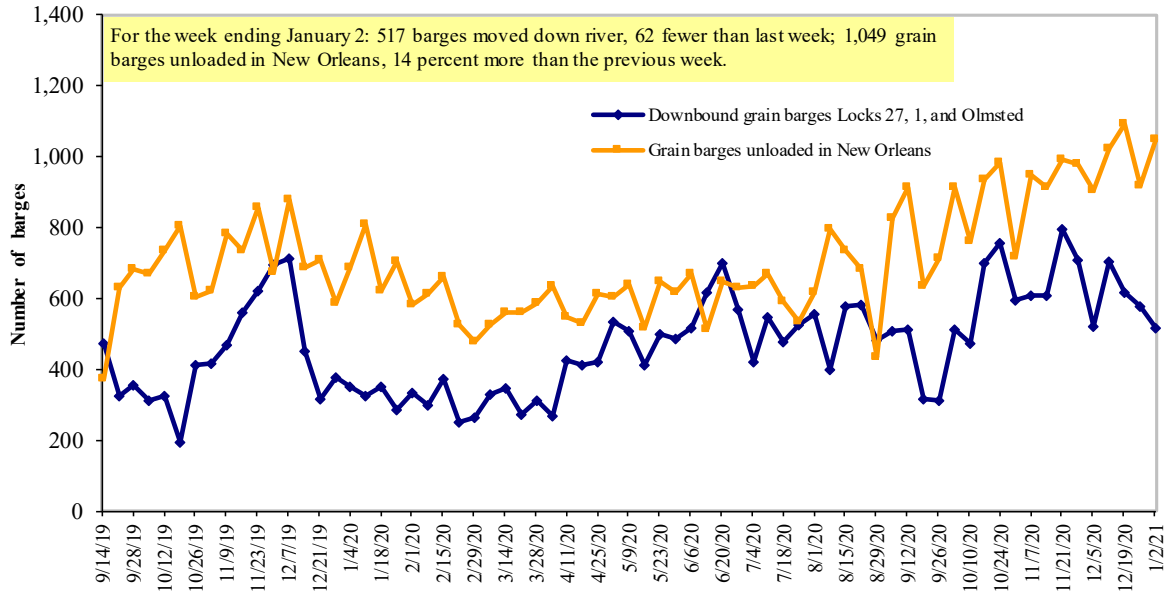
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



Source: U.S. Army Corps of Engineers.

Figure 12

Grain barges for export in New Orleans region



Note: Olmsted = Olmsted Locks and Dam.

Source: U.S. Army Corps of Engineers and USDA, Agricultural Marketing Service.

Truck Transportation

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

Table 11

Retail on-highway diesel prices, week ending 1/4/2021 (U.S. $/gallon)

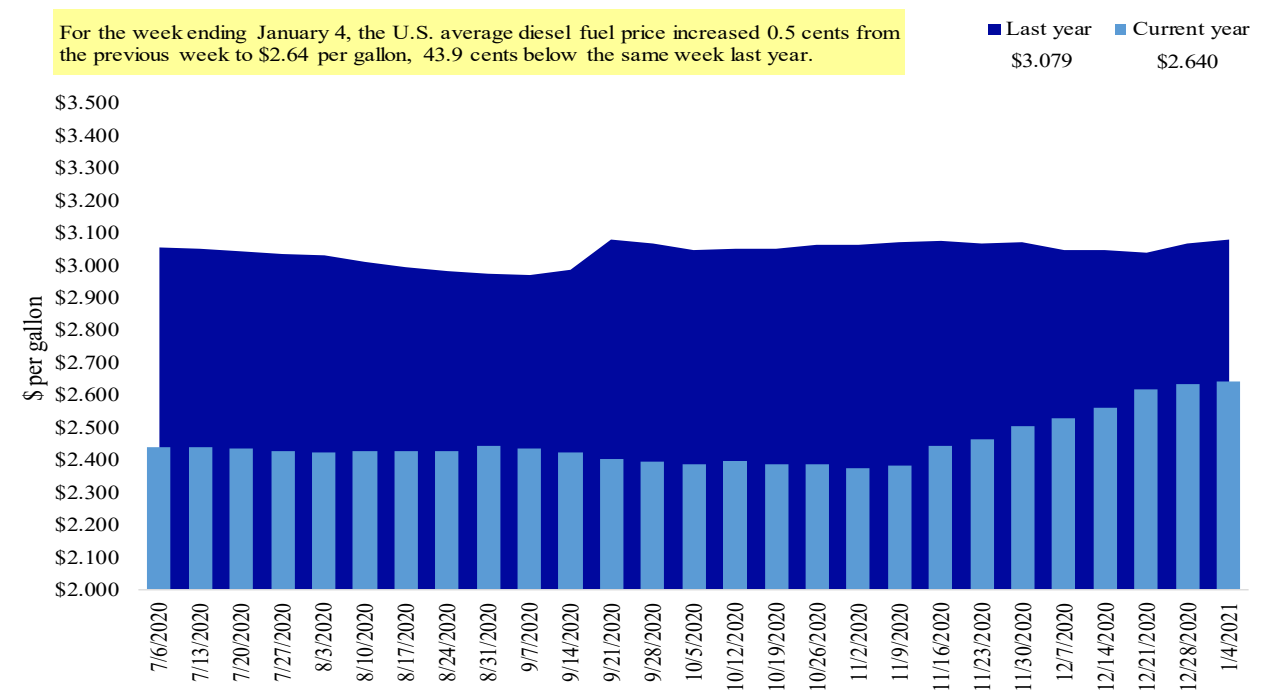
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	2.667	0.008	-0.453
	New England	2.665	0.013	-0.462
	Central Atlantic	2.857	0.007	-0.437
	Lower Atlantic	2.540	0.006	-0.460
II	Midwest	2.592	0.007	-0.385
III	Gulf Coast	2.398	0.005	-0.430
IV	Rocky Mountain	2.586	-0.002	-0.514
V	West Coast	3.116	0.003	-0.500
	West Coast less California	2.771	0.001	-0.493
	California	3.404	0.005	-0.491
Total	United States	2.640	0.005	-0.439

[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]									
12/24/2020	1,635	508	1,671	2,681	104	6,599	28,967	17,513	53,079
This week year ago	1,489	560	1,363	1,124	169	4,706	9,980	8,571	23,256
Cumulative exports-marketing year[2]									
2020/21 YTD	5,466	1,062	4,106	2,844	487	13,964	14,229	37,341	65,533
2019/20 YTD	5,419	1,532	3,930	2,646	621	14,148	8,375	20,845	43,368
YTD 2020/21 as % of 2019/20	101	69	104	107	78	99	170	179	151
Last 4 wks. as % of same period 2019/20*	110	82	116	234	80	137	292	237	240
Total 2019/20	9,526	2,318	6,960	4,751	922	24,477	42,622	43,994	111,094
Total 2018/19	8,591	3,204	6,776	5,164	479	24,214	48,924	46,189	119,327

[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 12/24/2020	Total commitments[2]		% change	Exports[3]
	2020/21 current MY	2019/20 last MY	current MY from last MY	3-yr. avg. 2017-19
		- 1,000 mt -		
Mexico	9,721	8,986	8	14,869
Japan	5,350	2,800	91	11,221
Columbia	2,003	1,468	36	4,830
Korea	1,060	11	9,537	4,011
China	11,590	60	19,282	909
Top 5 importers	**29,725**	**13,325**	**123**	**35,840**
Total U.S. corn export sales	**43,196**	**18,355**	**135**	**49,983**
% of projected exports	64%	41%		
Change from prior week[2]	**965**	**531**		
Top 5 importers' share of U.S. corn export sales	69%	73%		72%
USDA forecast December 2020	**67,430**	**45,242**	**49**	
Corn use for ethanol USDA forecast, December 2020	**128,270**	**123,241**	**4**	

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

Source: USDA, Foreign Agricultural Service.

Table 14

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

For the week ending 12/24/2020	Total commitments[2] 2020/21 current MY	2019/20 last MY	% change current MY from last MY	Exports[3] 3-yr. avg. 2017-19
		- 1,000 mt -		- 1,000 mt -
China	32,420	11,097	192	19,106
Mexico	3,418	2,849	20	4,591
Egypt	1,847	1,229	50	2,980
Indonesia	1,129	878	29	2,360
Japan	1,204	1,190	1	2,288
Top 5 importers	**40,018**	**17,243**	**132**	**31,324**
Total U.S. soybean export sales	**54,854**	**29,416**	**86**	**49,352**
% of projected exports	92%	64%		
change from prior week[2]	**695**	**330**		
Top 5 importers' share of U.S. soybean export sales	73%	59%		**63%**
USDA forecast, December 2020	**59,946**	**45,668**	**131**	

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

Source: USDA, Foreign Agricultural Service.

Table 15

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

For the week ending 12/24/2020	Total commitments[2] 2020/21 current MY	2019/20 last MY	% change current MY from last MY	Exports[3] 3-yr. avg. 2017-19
		1,000 mt -		- 1,000 mt -
Mexico	2,677	2,736	(2)	3,213
Philippines	2,612	2,412	8	2,888
Japan	1,936	1,921	1	2,655
Nigeria	1,009	1,037	(3)	1,433
Korea	1,415	1,011	40	1,372
Indonesia	824	652	26	1,195
Taiwan	857	976	(12)	1,175
Thailand	698	630	11	727
Italy	559	663	(16)	622
Colombia	300	546	(45)	618
Top 10 importers	**12,887**	**12,585**	2	**15,897**
Total U.S. wheat export sales	**20,563**	**18,854**	9	**23,821**
% of projected exports	77%	72%		
change from prior week[2]	**521**	**312**		
Top 10 importers' share of U.S. wheat export sales	63%	67%		67%
USDA forecast, December 2020	**26,839**	**26,294**	2	

[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.

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

Source: USDA, Foreign Agricultural Service.

Table 16

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

Port regions	For the week ending 12/31/20	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	295	287	103	15,966	14,120	113	102	100	13,961
Corn	202	331	61	9,969	7,047	141	n/a	167	7,047
Soybeans	263	513	51	14,028	12,184	115	229	229	11,969
Total	**760**	**1,131**	**67**	**39,963**	**33,351**	**120**	**200**	**158**	**32,977**
Mississippi Gulf									
Wheat	17	30	57	3,422	4,514	76	35	32	4,448
Corn	577	745	77	28,781	21,153	136	163	153	20,763
Soybeans	886	1,278	69	38,013	32,142	118	174	194	31,398
Total	**1,480**	**2,053**	**72**	**70,215**	**57,809**	**121**	**166**	**174**	**56,609**
Texas Gulf									
Wheat	0	26	0	4,248	6,141	69	22	21	6,009
Corn	0	12	0	723	661	109	77	163	640
Soybeans	97	99	98	2,098	2	n/a	n/a	n/a	2
Total	**97**	**138**	**71**	**7,068**	**6,804**	**104**	**160**	**156**	**6,650**
Interior									
Wheat	30	85	35	2,263	2,014	112	105	148	1,987
Corn	118	138	85	8,683	7,987	109	105	118	7,857
Soybeans	114	193	59	7,274	7,128	102	128	151	7,043
Total	**262**	**417**	**63**	**18,220**	**17,128**	**106**	**114**	**135**	**16,887**
Great Lakes									
Wheat	0	0	n/a	891	1,339	67	36	56	1,339
Corn	0	7	0	111	11	980	n/a	n/a	11
Soybeans	0	25	0	1,111	493	225	640	371	493
Total	**0**	**31**	**0**	**2,113**	**1,844**	**115**	**135**	**175**	**1,844**
Atlantic									
Wheat	0	0	n/a	65	37	175	n/a	n/a	37
Corn	0	0	n/a	33	99	33	n/a	0	99
Soybeans	14	154	9	1,870	1,402	133	328	205	1,353
Total	**14**	**154**	**9**	**1,968**	**1,538**	**128**	**328**	**201**	**1,489**
U.S. total from ports*									
Wheat	342	428	80	26,854	28,164	95	77	79	27,781
Corn	897	1,233	73	48,301	36,958	131	187	151	36,417
Soybeans	1,375	2,262	61	64,394	53,351	121	195	208	52,258
Total	**2,613**	**3,924**	**67**	**139,548**	**118,474**	**118**	**167**	**165**	**116,457**

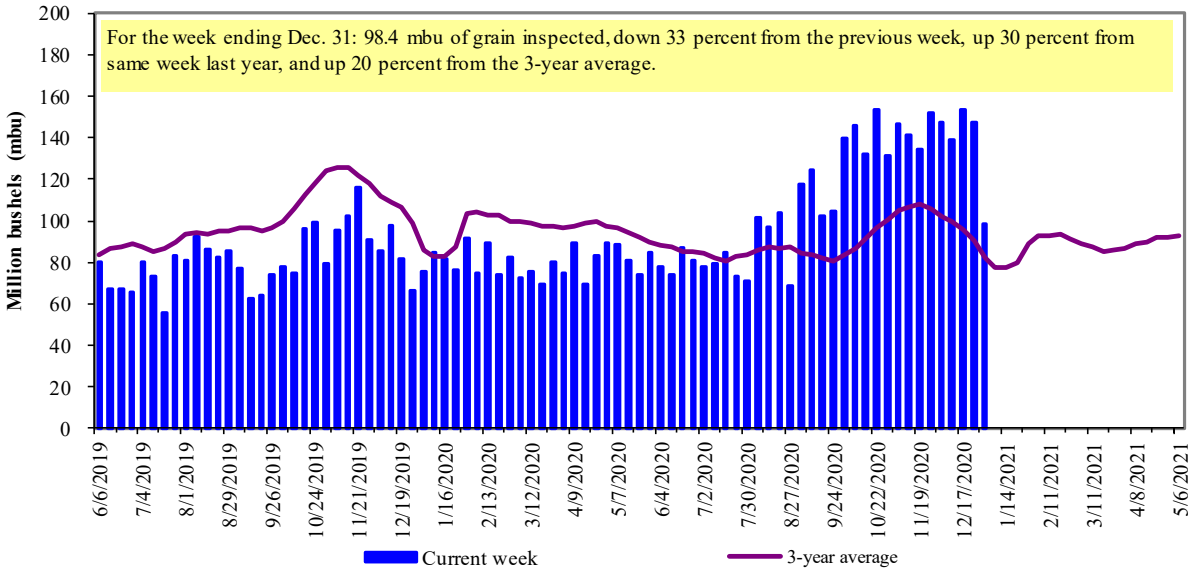
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

Source: USDA, Federal Grain Inspection Service; YTD= year-to-date; n/a = not applicable or no change.

The United States exports approximately one-quarter of the grain it produces. On average, this includes nearly 45 percent of U.S.-grown wheat, 50 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 55 percent of the U.S. export grain shipments departed through the U.S. Gulf region in 2019.

Figure 14

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

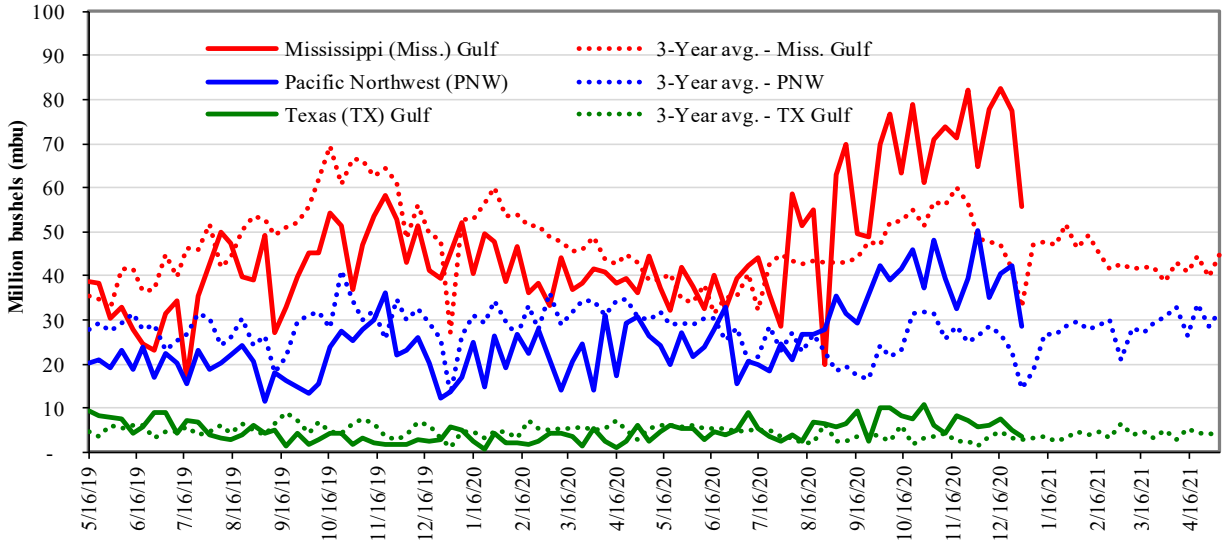


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

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



Week ending 12/31/20 inspections (mbu):	
MS Gulf:	55.9
PNW:	28.5
TX Gulf:	3.6

Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last wk:	down 28	down 30	down 28	down 33
Last Year (same wk):	up 24	down 37	up 17	up 107
3-yr avg. (4-wk. mov. Avg):	up 32	unchanged	up 30	up 23

Source: USDA, Federal Grain Inspection Service.

Table 17

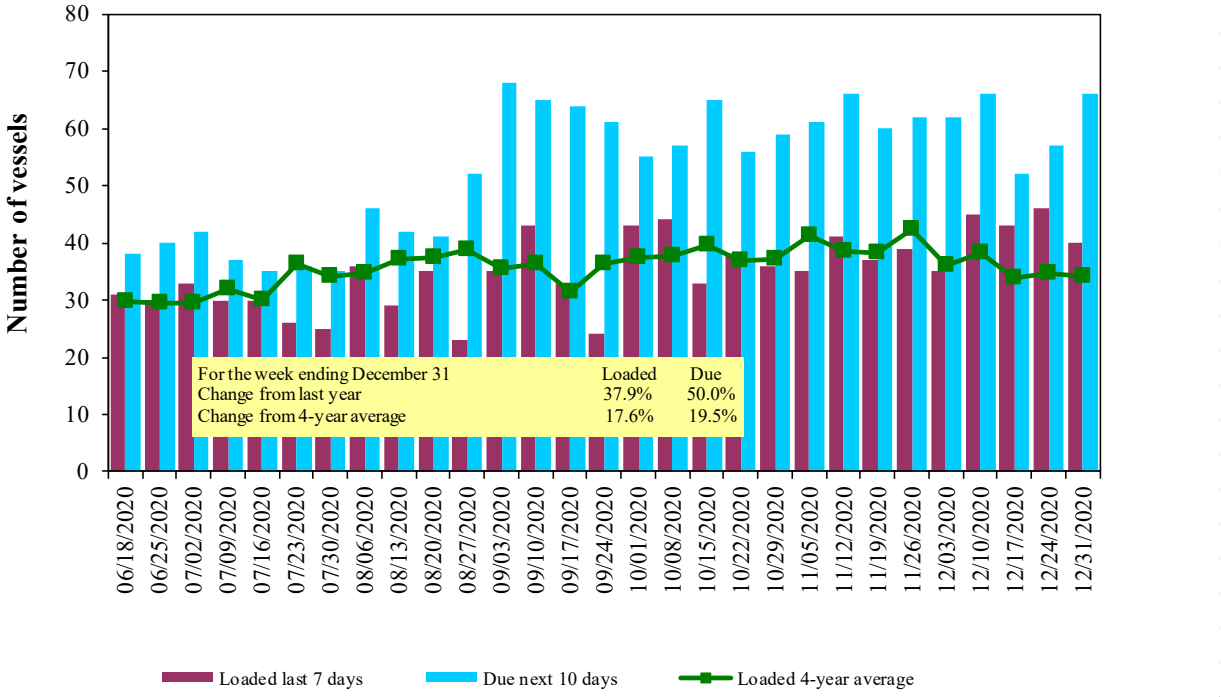
Weekly port region grain ocean vessel activity (number of vessels)

	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
12/31/2020	32	40	66	18
12/24/2020	50	46	57	20
2019 range	(26…61)	(18...44)	(33...69)	(8...33)
2019 average	40	31	49	17

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

Figure 16

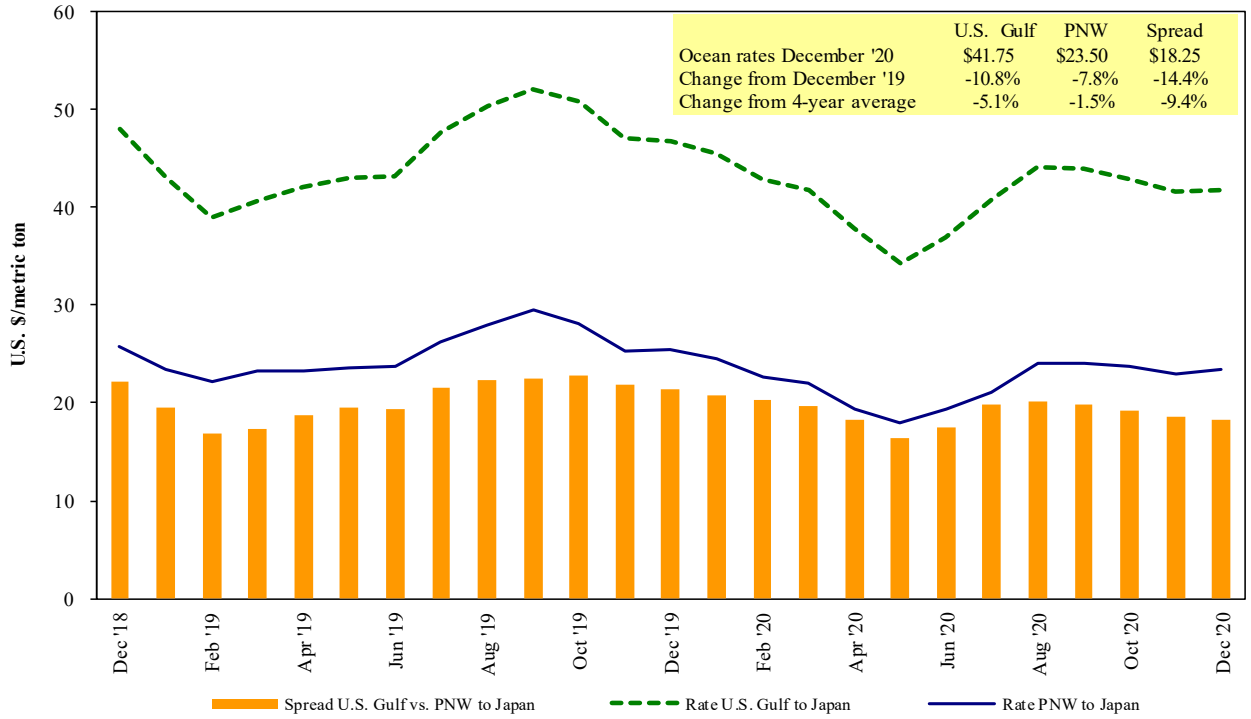
U.S. Gulf[1] vessel loading activity



[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 01/02/2021

Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US$/metric ton)
U.S. Gulf	China	Heavy grain	Dec 6/11	66,000	39.25
U.S. Gulf	China	Heavy grain	Nov 20/30	65,000	37.25
U.S. Gulf	China	Heavy grain	Oct 16/25	66,000	41.75
U.S. Gulf	China	Heavy grain	Aug 18/24	66,000	39.50
U.S. Gulf	Djibouti	Wheat	Oct 16/26	12,180	94.48*
U.S. Gulf	Djibouti	Wheat	Sep 18/28	15,810	54.86*
U.S. Gulf	Cameroon	Sorghum	Oct 10/20	8,580	68.50*
U.S. Gulf	Mozambique	Sorghum	Aug 10/20	30,780	41.35
U.S. Gulf	Pt Sudan	Sorghum	Jun 5/15	33,370	99.50
PNW	China	Soybeans	Sep 1/30	63,000	22.10 op 22.60
PNW	Indonesia	Soybean Meal	Nov 10/20	8,600	37.86*
PNW	Yemen	Wheat	Aug 4/14	15,000	42.95*
Vancouver	Japan	Wheat	Sep 15/30	20,000	24.30
Vancouver	Japan	Canola	Sep 15/30	30,000	24.30
Brazil	Japan	Corn	Sep 11/20	49,000	34.75
Brazil	Japan	Corn	Sep 1/10	60,000	34.00

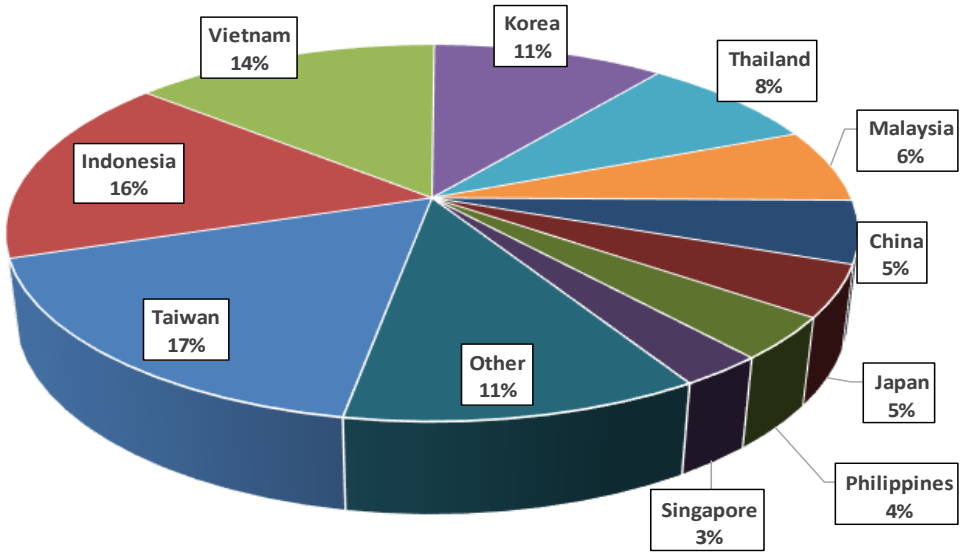
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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

Source: Maritime Research, Inc.

In 2019, containers were used to transport 9 percent of total U.S. waterborne grain exports. Approximately 60 percent of U.S. waterborne grain exports in 2019 went to Asia, of which 14 percent were moved in containers. Approximately 94 percent of U.S. waterborne containerized grain exports were destined for Asia.

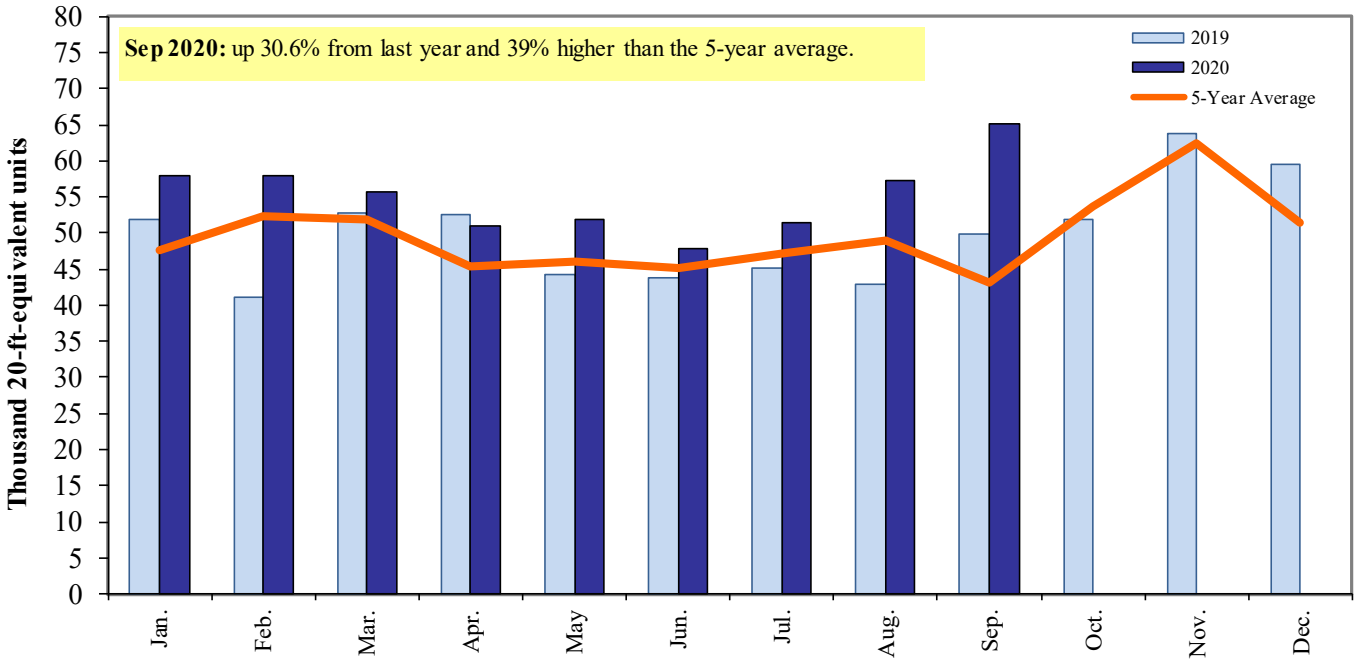
Figure 18
Top 10 destination markets for U.S. containerized grain exports, Jan-Sep 2020



Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 1001, 100190, 1002, 1003 100300, 1004, 100400, 1005, 100590, 1007, 100700, 1102, 110100, 230310, 110220, 110290, 1201, 120100, 230210, 230990, 230330, 120810, and 120190.

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

Figure 19
Monthly shipments of containerized grain to Asia



Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 100190, 100200, 100300, 100400, 100590, 100700, 110100, 110220, 110290, 1201, 120100, 120190, 120810, 230210, 230310, 230330, and 230990.

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

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