



Grain Transportation Report

A weekly publication of the Agricultural Marketing Service
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January 14, 2021

WEEKLY HIGHLIGHTS

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Grain Inspections Jump Sharply With Rising Corn and Soybean Shipments to Asia

For the week ending January 7, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions totaled 3.3 million metric tons (mmt). Total grain inspections were up 25 percent from the previous week, up 45 percent from the same period last year, and up 58 percent from the 3-year average. The jump in total inspections reflected a 24-percent increase in corn inspections and a 36-percent increase in soybean inspections. These increases were mainly due to rising shipments to Asia. Wheat inspections, however, were down 14 percent from week to week. From the previous week, Pacific Northwest (PNW) grain inspections increased 29 percent, and Mississippi Gulf inspections increased 26 percent. Grain inspections for the last 4 weeks were 69 percent above the same period last year and 68 percent above the 3-year average.

Panama Canal Issues Shipping Advisory

From 8 am, Wednesday, January 13, until 12:01 am on Friday, January 15, the east lane of the Panama Canal's Gatun Locks will be [out of service for unscheduled maintenance](#). To accommodate traffic displaced by the closure, additional slots are available for reserved transits of the other locks. The added slots will accommodate Panamax vessels (65,000-80,000 tons deadweight (DWT)) throughout the days of the closure. However, the number of transit slots for Neopanamax vessels (up to 120,000 DWT) will not change.

STB Releases 2019 Public Use Waybill Sample and Uniform Railroad Costing System Data

On December 18, the Surface Transportation Board (STB) released the 2019 Public Use Waybill Sample and the 2019 Uniform Railroad Costing System (URCS) data. STB's waybill data are among the most comprehensive sources for understanding rail freight movements and trends. STB expects to release products using these data soon (e.g., Revenue Shortfall Allocation Method and various stratification reports). The 2019 [Public Use Waybill](#) Sample and the 2019 [URCS data](#) are available on the STB website. In addition, the 2005-19 Waybill data are available on USDA's [Agricultural Transportation Open Data Platform](#) in an easy-to-use, accessible format.

Snapshots by Sector

Export Sales

For the week ending December 31, **unshipped balances** of wheat, corn, and soybeans totaled 50.8 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 0.749 mmt, down 22 percent from the past week. Net **soybean export sales** were 0.037 mmt, down 95 percent from the previous week. Net **wheat export sales** were 0.275 mmt, down 47 percent from the previous week.

Rail

U.S. Class I railroads originated 24,790 **grain carloads** during the week ending January 2. This was a 14-percent increase from the previous week, 27 percent more than last year, and 33 percent more than the 3-year average.

Average January shuttle **secondary railcar** bids/offers (per car) were \$206 above tariff for the week ending January 7. This was \$278 less than last week and \$713 more than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending January 9, **barge grain movements** totaled 653,312 tons. This was 22 percent lower than the previous week and 23 percent more than the same period last year.

For the week ending January 9, 409 grain barges **moved down river**—108 barges fewer than the previous week. There were 1,058 grain barges **unloaded in New Orleans**, 1 percent more than the previous week.

Ocean

For the week ending January 7, 41 **oceangoing grain vessels** were loaded in the Gulf—21 percent more than the same period last year. Within the next 10 days (starting January 8, 2021), 69 vessels were expected to be loaded—50 percent more than the same period last year.

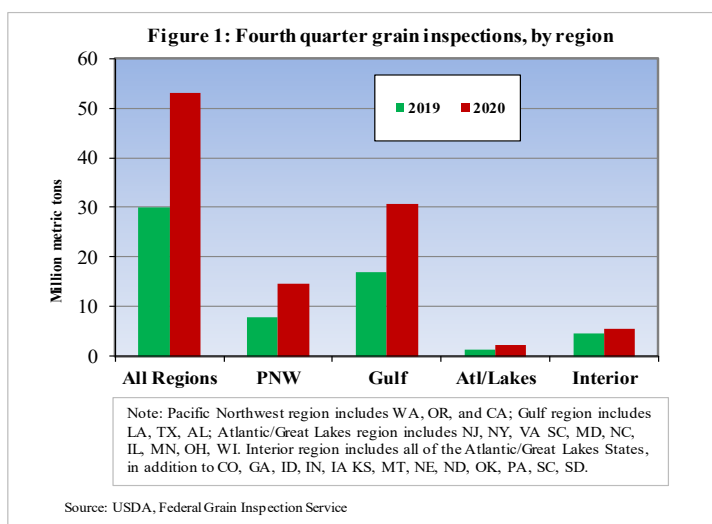
As of January 7, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$43.25. This was 3 percent more than the previous week. The rate from PNW to Japan was \$24.50 per mt, 3 percent more than the previous week.

Fuel

For the week ending January 11, the U.S. average **diesel fuel price** increased 3.0 cents from the previous week to \$2.67 per gallon, 39.4 cents below the same week last year.

Fourth-Quarter 2020 Grain Inspections Reach a Record High

According to USDA’s Federal Grain Inspection Service (FGIS), fourth-quarter-2020 inspections of grain (wheat, corn, and soybeans) shipped from major U.S. ports reached an all-time high of 53 million metric tons (mmt) (fig. 1). This was 41 percent above the 5-year average. From fourth quarter 2019 to fourth quarter 2020 (year to year), grain inspections rose 76 percent. Corn and soybean exports rebounded from 2019, largely driven by China’s demand, which absorbed a major share of U.S. soybean exports and a rising share of U.S. corn exports. Wheat inspections increased slightly from year to year. Although rail and ocean freight rates held steady, barge rates and trucking rates increased notably year to year, in response to rising demand for grain transportation.



Breakdown by Region

U.S. Gulf—year to year changes. Grain inspections in the U.S. Gulf reached a record 31 mmt, up 82 percent year to year and 42 percent above the 5-year average (see fig. 1). U.S. Gulf corn inspections jumped 87 percent, mainly reflecting rising demand from the livestock feed sectors in Asia and Latin America. Soybean inspections in the U.S. Gulf jumped 85 percent, primarily because of increasing demand from

Asia. U.S. Gulf wheat inspections increased 41 percent, with higher shipments to Asia and Africa.

Rail deliveries of grain to U.S. Gulf ports increased 249 percent, and barge grain movements on the Mississippi River to the U.S. Gulf increased over 37 percent. Ocean freight rates, however, for shipping grain through the Gulf were down slightly, both from third quarter 2020 to fourth quarter 2020 (quarter to quarter) and year to year. The drop was mainly due to slow bulk movements and other challenges.

Pacific Northwest—year to year changes. Fourth-quarter 2020 PNW grain inspections totaled 14.5 mmt—an 87 percent increase from year to year and a 42-percent increase from the 5-year average. Year to year, rail deliveries of grain to PNW ports were up 81 percent as well. At 1.8 mmt, fourth-quarter 2020 PNW corn inspections were 14 times their levels of a year ago, as demand for corn shipments increased from Asia and other destinations. Also, PNW soybean inspections rose 125 percent to 9.2 mmt, and PNW soybean inspections destined to China rose 147 percent to 8.4 mmt. PNW wheat inspections reached 3.5 mmt, down 1 percent from fourth quarter 2019. Also, PNW ocean freight rates were down slightly.

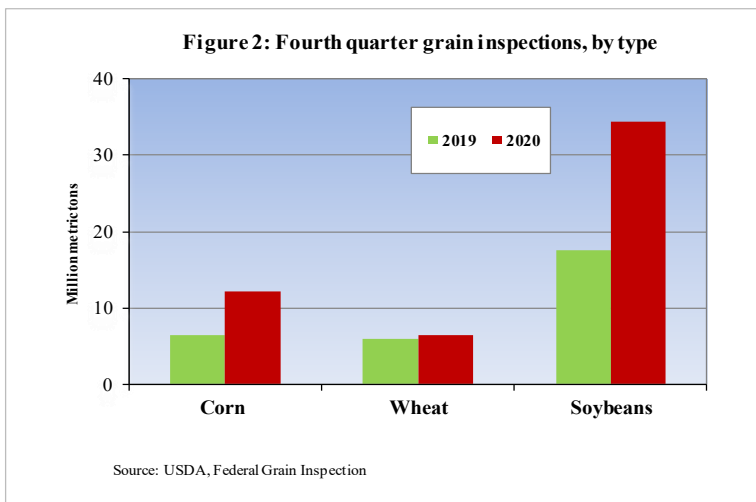
Atlantic-Great Lakes—year to year changes. Atlantic-Great Lakes grain inspections reached 2.3 mmt, up 67 percent year to year and 24 percent above the 5-year average. Corn and soybean inspections in the Atlantic-Great Lakes ports increased over 500 percent, as shipments to Asia jumped significantly. Wheat inspections, however, decreased 71 percent. This drop was largely due to lower shipments to Asia, which received more wheat from the U.S. Gulf and PNW, displacing shipments

from the Atlantic-Great Lakes region. As Europe increased its wheat imports from U.S. competitors such as China, Europe’s wheat imports from the Atlantic-Great Lakes region dropped.

Interior—year to year changes. Interior grain inspections reached a record 5.5 mmt, up 19 percent year to year and 36 percent above the 5-year average. The increases were mainly due to higher shipments to Mexico. Broken down more specifically, Interior inspections of corn rose 9 percent; soybeans rose 31 percent, and wheat rose 16 percent. At 2.4 mmt, Interior soybean inspections were 45 percent above the 5-year average.

Breakdown by Commodity: Corn and Soybean Inspections Rebound; Wheat Up Slightly

Corn. Corn inspections increased 86 percent from year to year and were 34 percent above the 5-year average (fig. 2). Total U.S. corn exports for marketing year (MY) 2020/21 are projected to increase 43 percent from MY 2019/20, according to USDA’s January [World Agricultural Supply and Demand Estimates \(WASDE\)](#) report.



Soybeans. Soybean inspections totaled 34 mmt, a 96-percent year-to-year increase, as inspections destined to China continued to rise, and purchases from other countries continued steady (fig. 2). Inspections of China-bound soybeans accounted for over 55 percent of total U.S. soybean inspections and over 65 percent of U.S. soybeans destined to Asia. According to the January *WASDE* report, U.S. soybean exports for MY 2020/21 are expected to increase 33 percent from MY 2019/20.

Wheat. Wheat inspections totaled 6.4 mmt, up 7 percent year to year and 18 percent above the 5-year average (see fig. 2). The January *WASDE* report projects total MY 2020/21 U.S. wheat exports to increase 2 percent from MY 2019/20. Johnny.Hill@usda.gov

Grain Transportation Indicators

Table 1

Grain transport cost indicators¹

For the week ending	Truck	Rail	Barge	Ocean	
		Unit train	Shuttle	Gulf	Pacific
01/13/21	179	307	229	193	174
01/06/21	177	310	241	188	168

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

Source: USDA, Agricultural Marketing Service.

Table 2

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

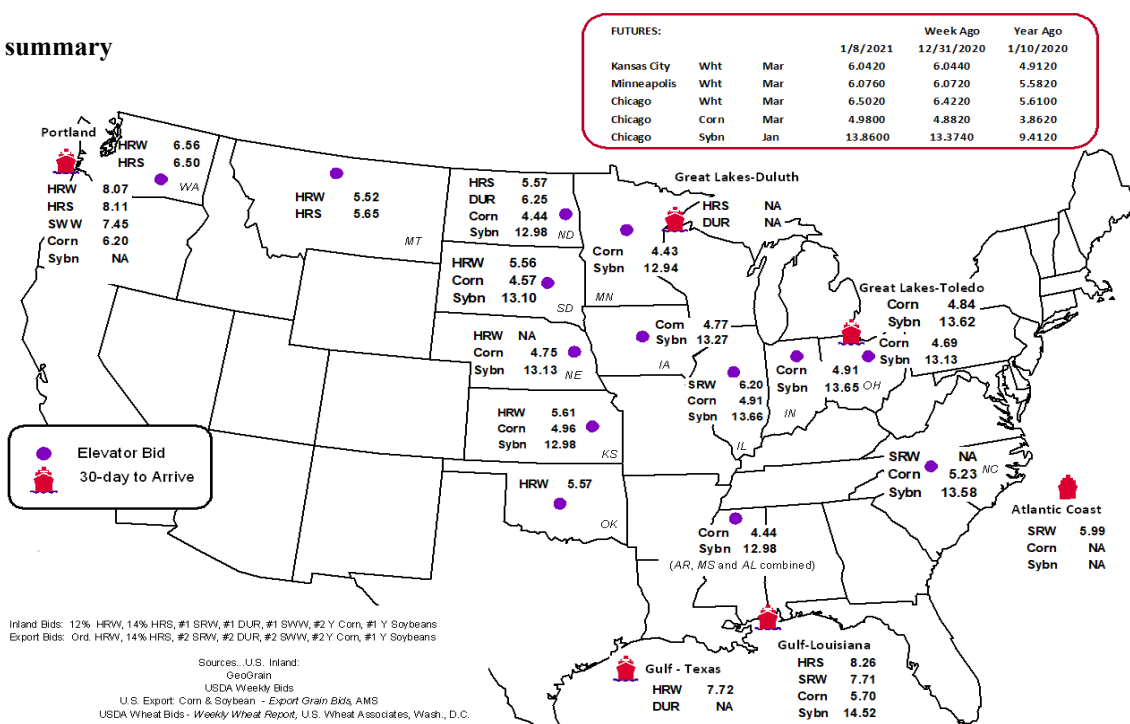
Commodity	Origin-destination	1/8/2021	12/31/2020
Corn	IL-Gulf	-0.79	-0.85
Corn	NE-Gulf	-0.95	-1.02
Soybean	IA-Gulf	-1.25	-1.28
HRW	KS-Gulf	-2.11	n/a
HRS	ND-Portland	-2.54	n/a

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		Pacific	Atlantic &	Total	Week ending	Cross-border Mexico ³
	Gulf	Texas Gulf	Northwest	East Gulf			
1/06/2021 ^p	1,577	2,126	7,394	823	11,920	1/2/2021	1,450
12/30/2020 ^r	1,059	1,455	6,994	697	10,205	12/26/2020	2,422
2021 YTD ^r	1,577	2,126	7,394	823	11,920	2021 YTD	1,450
2020 YTD ^r	767	538	2,988	285	4,578	2020 YTD	2,307
2021 YTD as % of 2020 YTD	206	395	247	289	260	% change YTD	63
Last 4 weeks as % of 2020 ²	357	313	211	412	246	Last 4wks. % 2019	78
Last 4 weeks as % of 4-year avg. ²	354	166	155	214	173	Last 4wks. % 4 yr.	97
Total 2020	45,294	64,116	299,882	24,458	433,750	Total 2020	126,407
Total 2019	40,974	51,167	251,181	16,192	359,514	Total 2019	127,622

¹Data is incomplete as it is voluntarily provided.

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

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

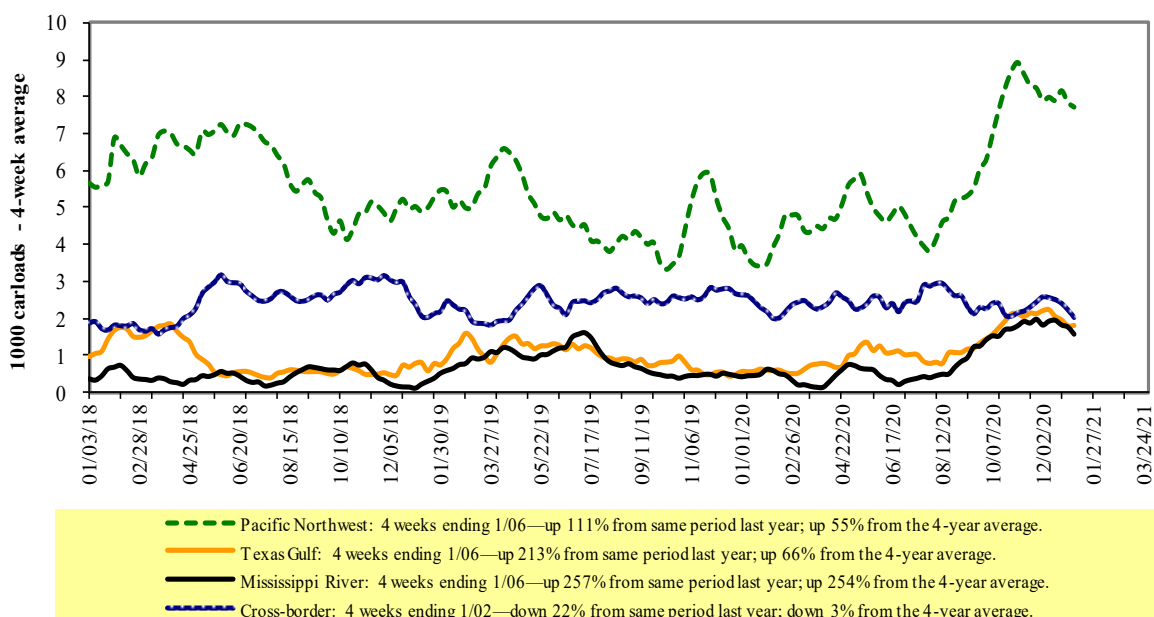
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available; wks. = weeks; avg. = average.

Source: USDA, Agricultural Marketing Service.

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

Figure 2

Rail deliveries to port



Source: USDA, Agricultural Marketing Service.

Table 4

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

For the week ending: 1/2/2021	East		West			U.S. total	Canada	
	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,961	2,329	12,601	999	6,900	24,790	5,221	4,949
This week last year	1,562	2,614	10,244	1,159	4,002	19,581	3,580	3,143
2020 YTD	91,659	130,895	613,630	57,782	296,701	1,190,667	239,307	261,778
2019 YTD	93,173	139,550	578,613	59,686	264,271	1,135,293	215,884	239,035
2020 YTD as % of 2019 YTD	98	94	106	97	112	105	111	110
Last 4 weeks as % of 2019*	128	105	129	101	153	130	126	138
Last 4 weeks as % of 3-yr. avg.**	117	97	121	108	142	122	131	129
Total 2019	91,611	136,936	568,369	58,527	260,269	1,115,712	212,304	235,892

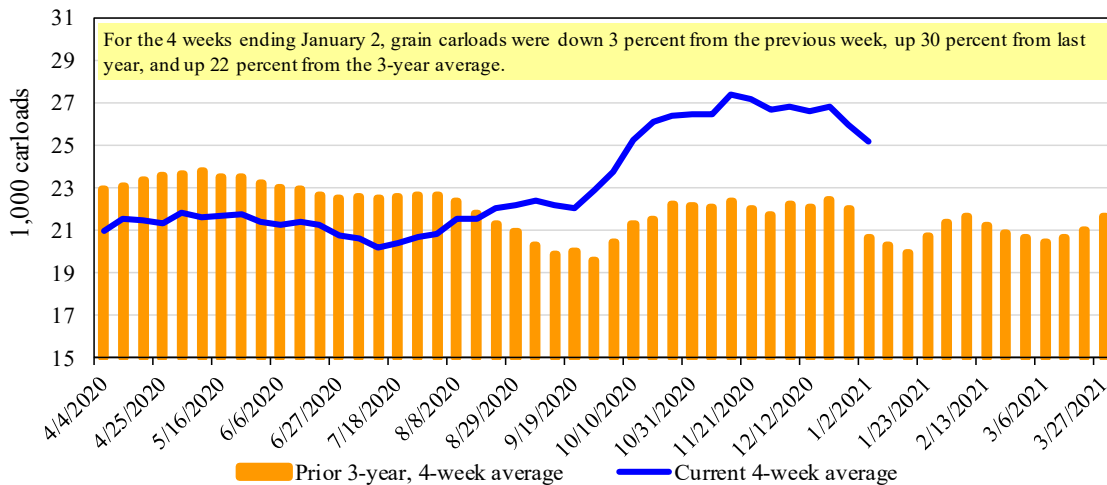
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

**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 offerings¹ (\$/car)²

For the week ending: 1/7/2021		Delivery period							
		Jan-21	Jan-20	Feb-21	Feb-20	Mar-21	Mar-20	Apr-21	Apr-20
BNSF ³	COT grain units	0	no bids	0	0	0	0	no bids	no bids
	COT grain single-car	no bids	72	33	18	0	0	0	0
UP ⁴	GCAS/Region 1	no offer	no offer	no offer	no offer	no offer	no offer	n/a	n/a
	GCAS/Region 2	no offer	no offer	no offer	no bid	no offer	no bid	n/a	n/a

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

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

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

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

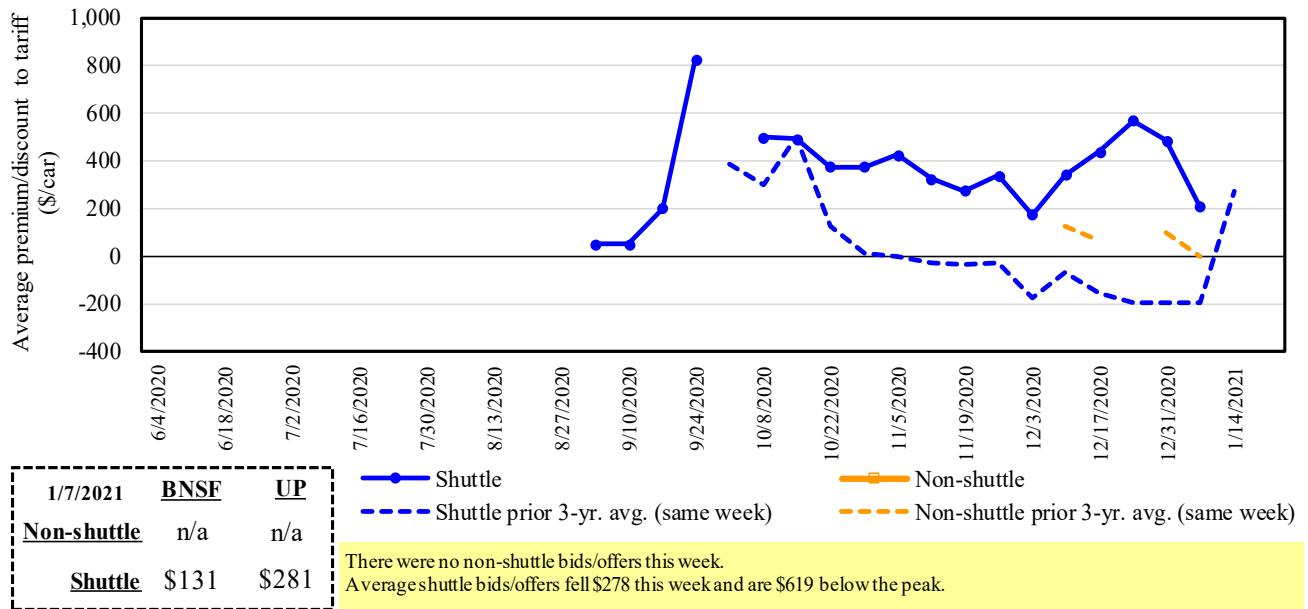
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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

Source: USDA, Agricultural Marketing Service.

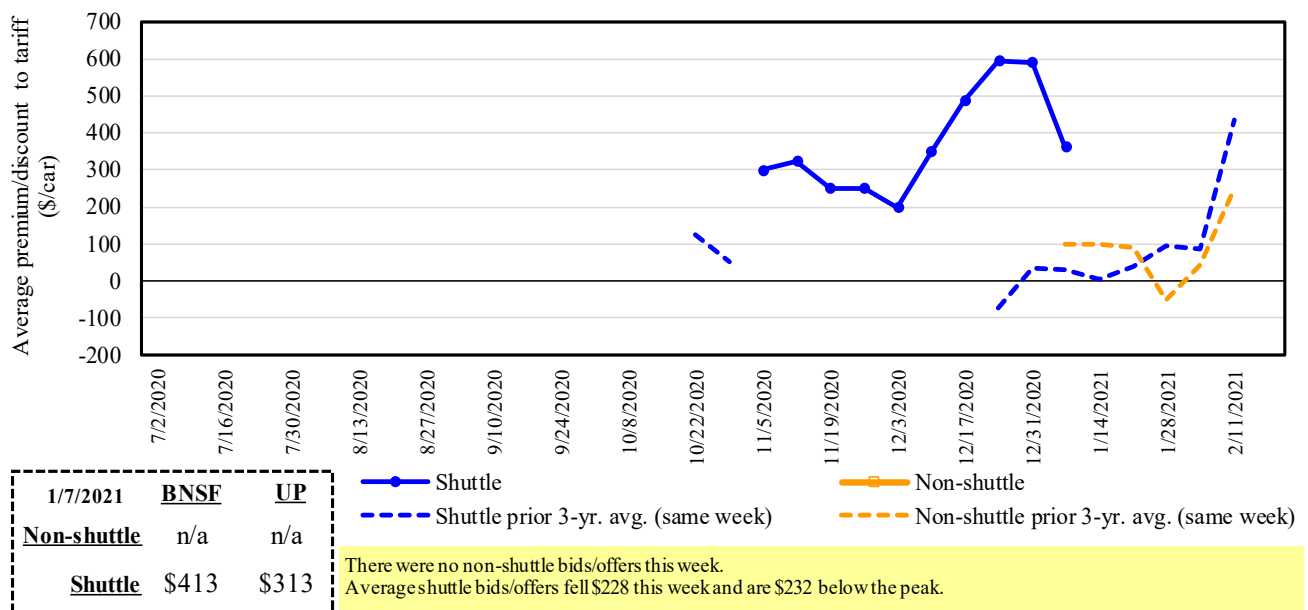
The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

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



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

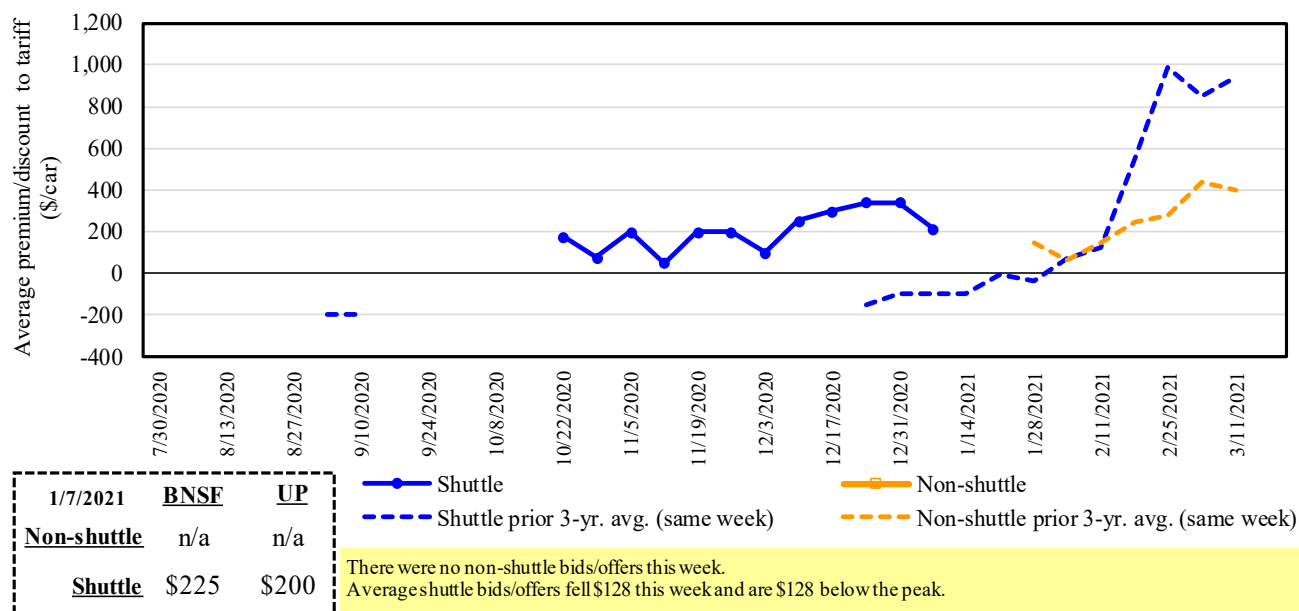
Figure 5
Bids/offers for railcars to be delivered in February 2021, secondary market



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

Figure 6

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



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

Table 6

Weekly secondary railcar market (\$/car)¹

For the week ending:		Delivery period					
		Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
1/7/2021							
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 2020	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 2020	n/a	n/a	n/a	n/a	n/a	n/a
Shuttle	BNSF-GF	131	413	225	75	(67)	n/a
	Change from last week	(269)	(269)	(156)	(81)	(42)	n/a
	Change from same week 2020	594	713	n/a	n/a	n/a	n/a
	UP-Pool	281	313	200	25	n/a	n/a
	Change from last week	(288)	(188)	(100)	17	n/a	n/a
	Change from same week 2020	831	413	300	n/a	n/a	n/a

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

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

BNSF = BNSF Railway; UP = Union Pacific Railroad.

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

Source: USDA, Agricultural Marketing Service.

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

Table 7

Tariff rail rates for unit and shuttle train shipments¹

January 2021	Origin region ³	Destination region ³	Tariff rate/car	Fuel surcharge per car	Tariff plus surcharge per:		Percent change Y/Y ⁴
					metric ton	bushel ²	
Unit train							
Wheat	Wichita, KS	St. Louis, MO	\$3,983	\$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
Corn	Amarillo, TX	Los Angeles, CA	\$5,121	\$95	\$51.80	\$1.41	-3
	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
Soybeans	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
	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
Soybeans	Council Bluffs, IA	Stockton, CA	\$5,100	\$0	\$50.65	\$1.29	2
	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

¹A unit train refers to shipments of at least 25 cars. Shuttle train rates are generally available for qualified shipments of

75-120 cars that meet railroad efficiency requirements.

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

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

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

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

Table 8

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

Date: January 2021			Tariff rate per car ¹	Fuel surcharge per car ²	Tariff rate plus fuel surcharge per:		Percent change ⁴ Y/Y
Commodity	Origin state	Destination region			metric ton ³	bushel ³	
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	Tlahpantla, 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

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

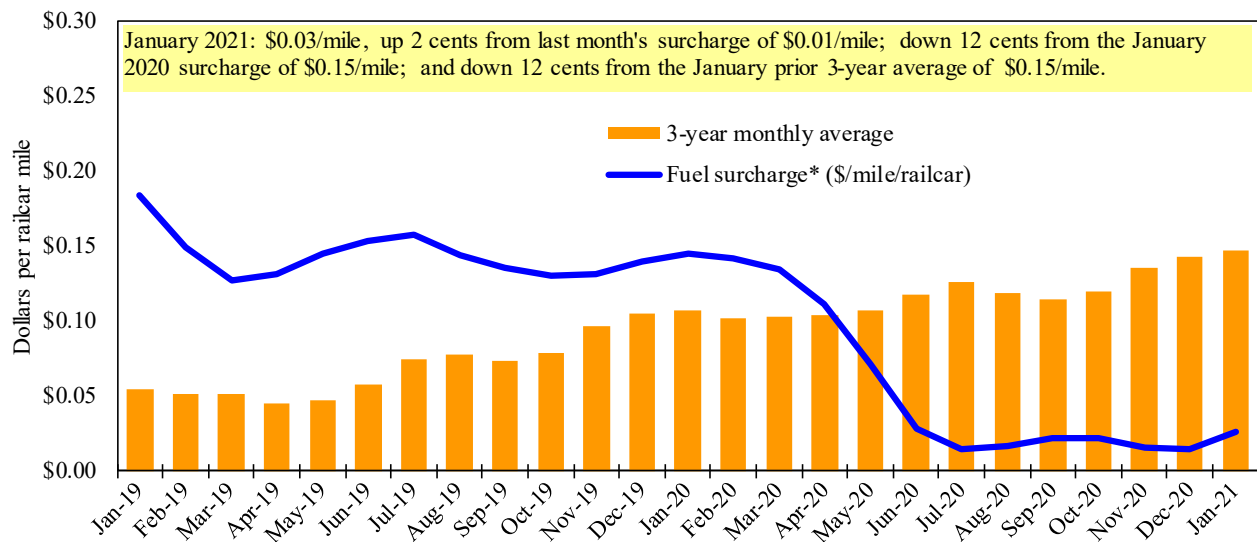
²Fuel surcharge adjusted to reflect the change in Ferrocarril Mexicano, S.A. de C.V railroad fuel surcharge policy as of 10/01/2009.

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

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

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

Figure 7

Railroad fuel surcharges, North American weighted average¹

¹ Weighted by each Class I railroad's proportion of grain traffic for the prior year.

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

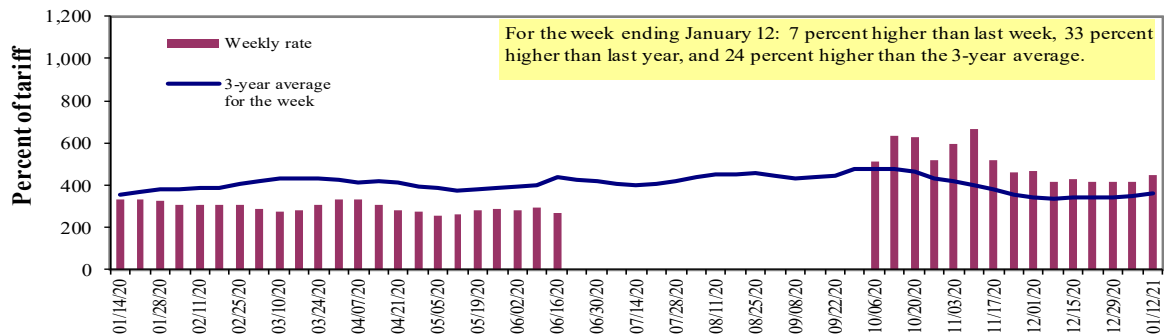
**CSX strike price changed from \$2.00/gal. to \$3.75/gal. starting January 1, 2015.

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

Barge Transportation

Figure 8

Illinois River barge freight rate^{1,2,3}



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

³No 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
Rate¹	1/12/2021	-	-	445	303	336	336	256
	1/5/2021	-	-	418	304	345	345	269
\$/ton	1/12/2021	-	-	20.65	12.09	15.76	13.57	8.04
	1/5/2021	-	-	19.40	12.13	16.18	13.94	8.45
Current week % change from the same week:								
	Last year	-	-	33	33	30	30	20
	3-year avg. ²	-	-	24	13	11	11	10
Rate¹	February	-	-	433	294	321	321	254
	April	-	-	365	269	289	289	243

¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-week moving average; ton = 2,000 pounds; "-" not available due to closure.

Source: USDA, Agricultural Marketing Service.

Figure 9

Benchmark tariff rates

Calculating barge rate per ton:

$$(\text{Rate} * 1976 \text{ tariff benchmark rate per ton}) / 100$$

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

Map Credit: USDA, Agricultural Marketing Service

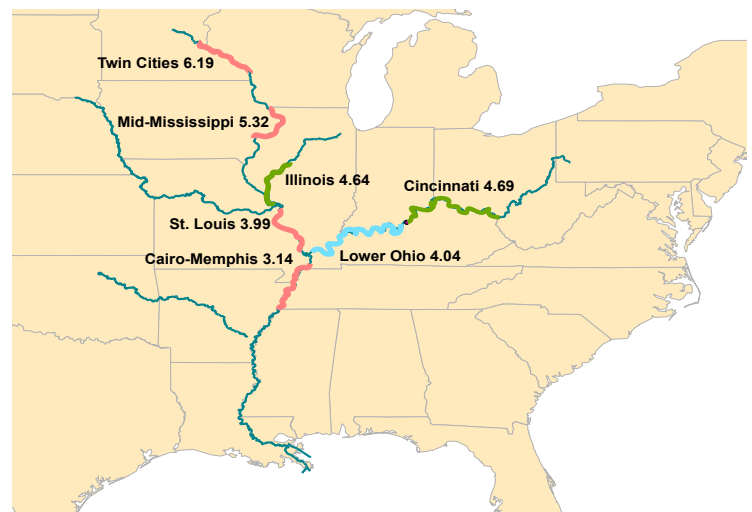
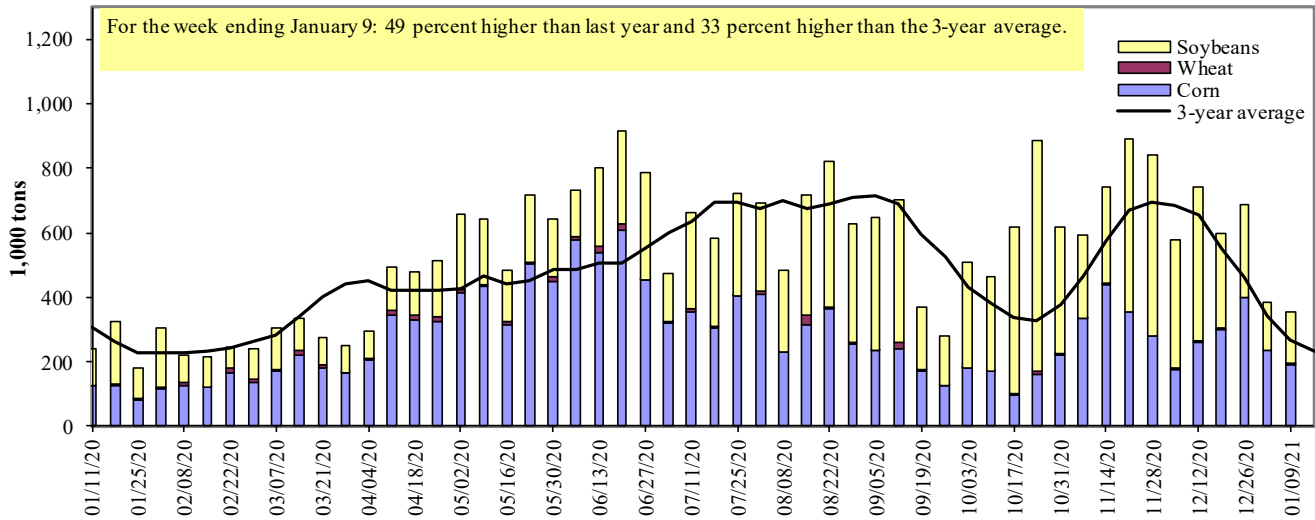


Figure 10

Barge movements on the Mississippi River¹ (Locks 27 - Granite City, IL)



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

Source: U.S. Army Corps of Engineers.

Table 10

Barge grain movements (1,000 tons)

For the week ending 01/09/2021	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)	170	5	142	0	317
Granite City, IL (L27)	193	5	158	0	355
Illinois River (La Grange)	176	5	176	0	357
Ohio River (Olmsted)	128	2	131	2	262
Arkansas River (L1)	0	7	29	0	36
Weekly total - 2021	320	14	318	2	653
Weekly total - 2020	148	37	343	0	529
2021 YTD ¹	320	14	318	2	653
2020 YTD ¹	148	37	343	0	529
2021 as % of 2020 YTD	216	37	93	-	123
Last 4 weeks as % of 2020 ²	209	44	146	148	164
Total 2020	18,942	1,765	19,205	237	40,149

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 2020.

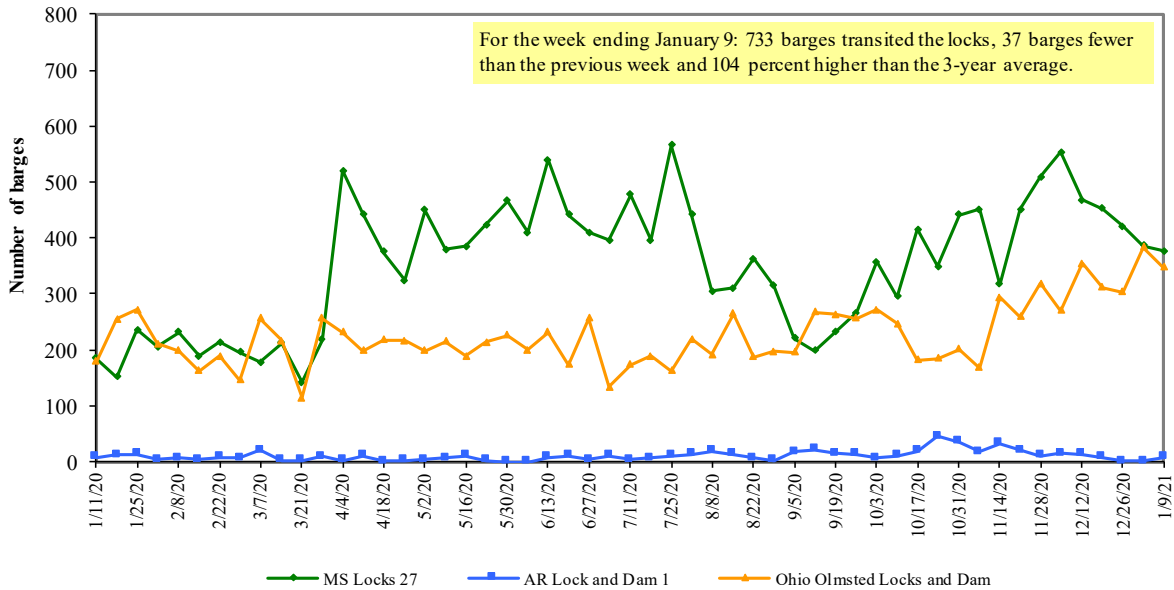
Note: 1. This week's totals reflect week 1's total for both MY 2020 and MY 2021.

2. Total may not add exactly due to rounding.

Source: U.S. Army Corps of Engineers.

Figure 11

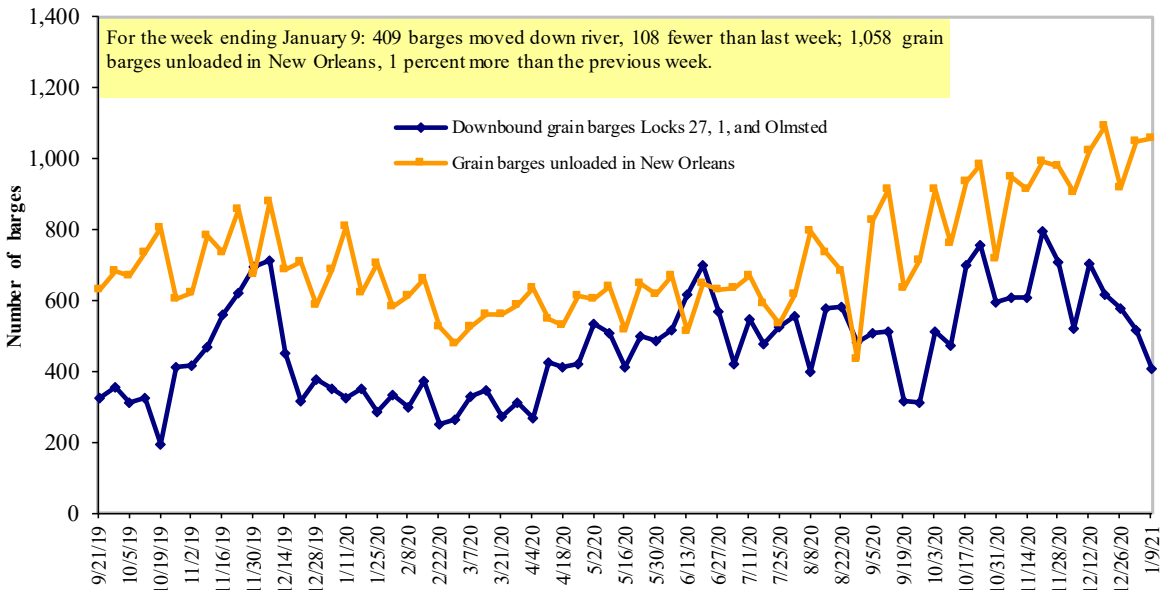
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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 1/11/2021 (U.S. \$/gallon)

Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	2.719	0.052	-0.392
	New England	2.700	0.035	-0.431
	Central Atlantic	2.891	0.034	-0.400
	Lower Atlantic	2.608	0.068	-0.376
II	Midwest	2.606	0.014	-0.359
III	Gulf Coast	2.429	0.031	-0.381
IV	Rocky Mountain	2.590	0.004	-0.475
	West Coast	3.139	0.023	-0.454
V	West Coast less California	2.793	0.022	-0.448
	California	3.427	0.023	-0.445
Total	United States	2.670	0.030	-0.394

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

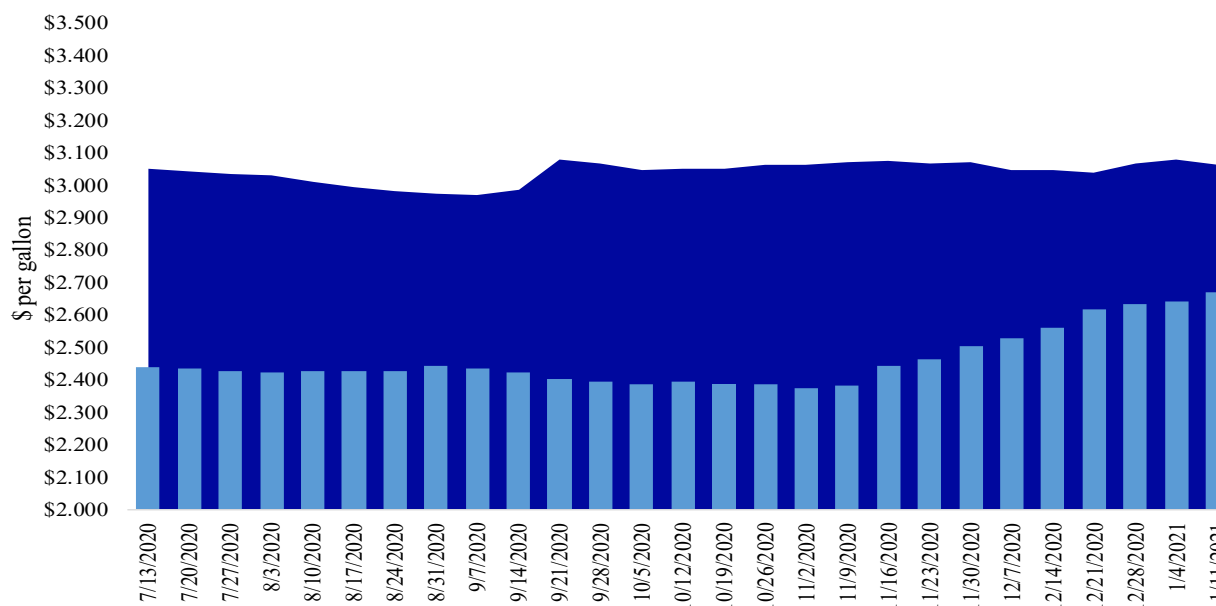
Source: U.S. Department of Energy, Energy Information Administration.

Figure 13

Weekly diesel fuel prices, U.S. average

For the week ending January 11, the U.S. average diesel fuel price increased 3.0 cents from the previous week to \$2.67 per gallon, 39.4 cents below the same week last year.

■ Last year ■ Current year
\$3.064 \$2.670



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

Grain Exports

Table 12

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

For the week ending	Wheat					All wheat	Corn	Soybeans	Total
	HRW	SRW	HRS	SWW	DUR				
Export balances¹									
12/31/2020	1,460	495	1,753	2,647	101	6,456	28,688	15,693	50,837
This week year ago	1,440	526	1,205	1,076	187	4,434	9,627	7,808	21,868
Cumulative exports-marketing year²									
2020/21 YTD	5,665	1,082	4,228	2,919	489	14,383	15,256	39,075	68,714
2019/20 YTD	5,505	1,575	4,092	2,706	623	14,501	8,890	21,964	45,354
YTD 2020/21 as % of 2019/20	103	69	103	108	78	99	172	178	152
Last 4 wks. as % of same period 2019/20*	111	92	137	247	66	147	303	237	247
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 importers¹ of U.S. corn

For the week ending 12/31/2020	Total commitments ²		% change current MY from last MY	Exports ³ 3-yr. avg. 2017-19
	2020/21 current MY	2019/20 last MY		
	- 1,000 mt -			
Mexico	9,823	8,945	10	14,869
Japan	5,525	2,862	93	11,221
Columbia	2,057	1,490	38	4,830
Korea	1,060	11	9,450	4,011
China	11,681	60	19,433	909
Top 5 importers	30,146	13,367	126	35,840
Total U.S. corn export sales	43,944	18,517	137	49,983
% of projected exports	68%	41%		
Change from prior week ²	749	162		
Top 5 importers' share of U.S. corn export sales	69%	72%		72%
USDA forecast January 2020	64,885	45,242	43	
Corn use for ethanol USDA forecast, January 2020	125,730	123,241	2	

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 (carry over plus accumulated export); yr. = year; avg. = average.

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

Source: USDA, Foreign Agricultural Service.

Table 14

Top 5 importers¹ of U.S. soybeans

For the week ending 12/31/2020	Total commitments ²		% change current MY from last MY	Exports ³ 3-yr. avg. 2017-19
	2020/21 current MY	2019/20 last MY		
	1,000 mt -			- 1,000 mt -
China	32,789	11,172	193	19,106
Mexico	3,432	2,850	20	4,591
Egypt	1,851	1,238	50	2,980
Indonesia	1,135	956	19	2,360
Japan	1,223	1,209	1	2,288
Top 5 importers	40,429	17,425	132	31,324
Total U.S. soybean export sales	54,768	29,771	84	49,352
% of projected exports	90%	65%		
change from prior week ²	37	356		
Top 5 importers' share of U.S. soybean export sales	74%	59%		63%
USDA forecast, January 2020	60,763	45,831	133	

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

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

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

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

Source: USDA, Foreign Agricultural Service.

Table 15

Top 10 importers¹ of all U.S. wheat

For the week ending 12/31/2020	Total commitments ²		% change current MY from last MY	Exports ³ 3-yr. avg. 2017-19
	2020/21 current MY	2019/20 last MY		
	1,000 mt -			- 1,000 mt -
Mexico	2,711	2,756	(2)	3,213
Philippines	2,645	2,422	9	2,888
Japan	1,937	1,921	1	2,655
Nigeria	1,042	1,083	(4)	1,433
Korea	1,415	1,011	40	1,372
Indonesia	825	670	23	1,195
Taiwan	940	979	(4)	1,175
Thailand	698	630	11	727
Italy	549	683	(20)	622
Colombia	300	548	(45)	618
Top 10 importers	13,061	12,702	3	15,897
Total U.S. wheat export sales	20,838	18,934	10	23,821
% of projected exports	78%	72%		
change from prior week ²	275	81		
Top 10 importers' share of U.S. wheat export sales	63%	67%		67%
USDA forecast, January 2020	26,839	26,294	2	

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

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

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

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

Source: USDA, Foreign Agricultural Service.

Table 16

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

Port regions	For the week ending 01/07/21	Previous week*	Current week as % of previous	2021 YTD*	2020 YTD*	2021 YTD as % of 2020 YTD	Last 4-weeks as % of:		2020 total*
							Last year	Prior 3-yr. avg.	
Pacific Northwest									
Wheat	210	295	71	210	484	43	93	104	15,966
Corn	337	202	167	337	1	n/a	n/a	208	9,969
Soybeans	433	263	165	433	353	123	322	277	14,028
Total	980	760	129	980	837	117	230	180	39,963
Mississippi Gulf									
Wheat	11	17	66	11	165	7	37	37	3,422
Corn	672	577	116	672	758	89	188	168	28,781
Soybeans	1,178	886	133	1,178	1,667	71	157	180	38,013
Total	1,861	1,480	126	1,861	2,590	72	160	170	70,215
Texas Gulf									
Wheat	58	0	n/a	58	266	22	27	31	4,248
Corn	0	0	n/a	0	22	0	48	145	723
Soybeans	115	97	118	115	0	n/a	n/a	n/a	2,098
Total	172	97	177	172	287	60	142	163	7,068
Interior									
Wheat	15	30	51	15	59	26	127	175	2,263
Corn	102	118	86	102	236	43	100	105	8,683
Soybeans	136	114	120	136	223	61	120	153	7,274
Total	254	262	97	254	518	49	112	132	18,220
Great Lakes									
Wheat	0	0	n/a	0	1	n/a	69	90	891
Corn	0	0	n/a	0	0	n/a	n/a	n/a	111
Soybeans	0	0	n/a	0	0	n/a	430	285	1,111
Total	0	0	n/a	0	1	n/a	173	186	2,113
Atlantic									
Wheat	0	0	n/a	0	0	n/a	n/a	n/a	65
Corn	0	0	n/a	0	0	n/a	n/a	0	33
Soybeans	10	14	69	10	62	16	282	174	1,870
Total	10	14	69	10	62	16	282	170	1,968
U.S. total from ports*									
Wheat	294	342	86	294	974	30	76	86	26,854
Corn	1,111	897	124	1,111	1,017	109	220	165	48,301
Soybeans	1,872	1,375	136	1,872	2,305	81	188	203	64,394
Total	3,277	2,613	125	3,277	4,296	76	169	168	139,548

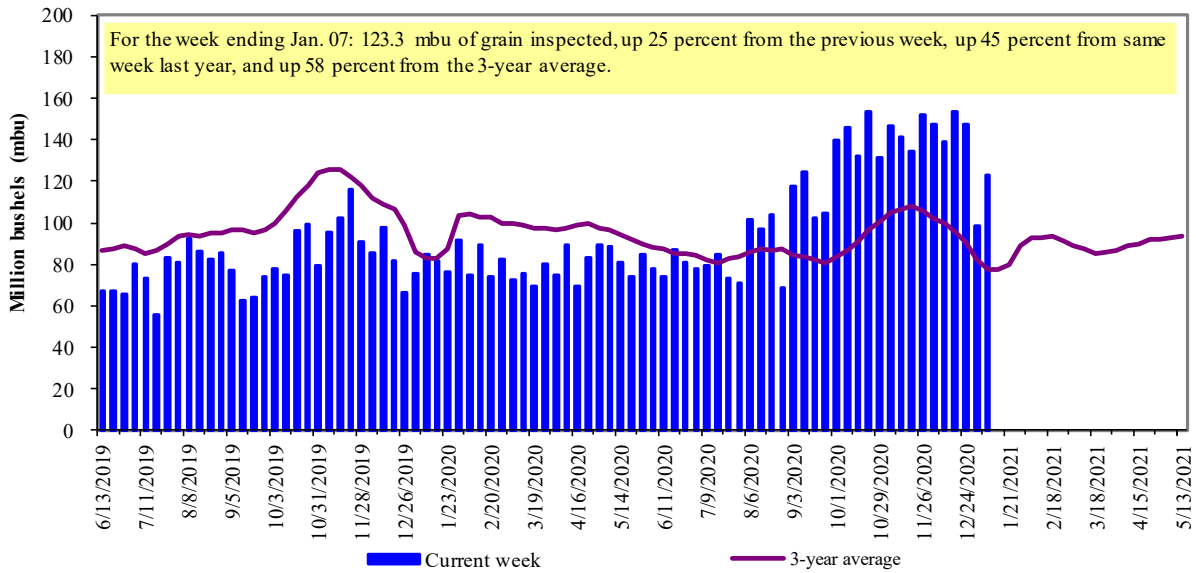
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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

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

Figure 14

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

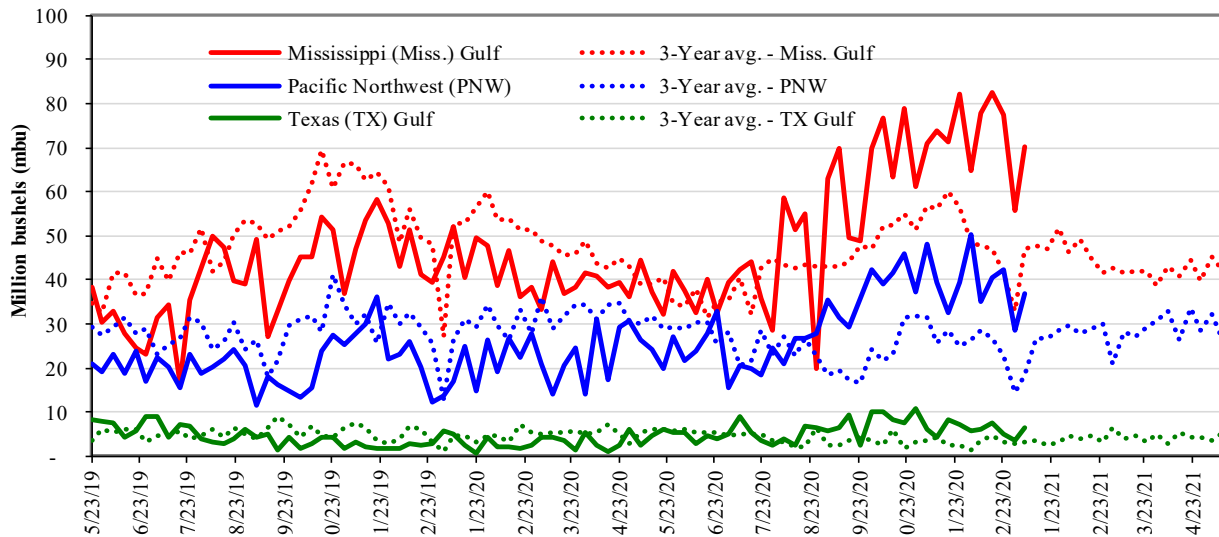


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

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



Week ending 01/07/21 inspections (mbu):	Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
MS Gulf: 70.1	Last wk:	up 25	up 77	up 29	up 30
PNW: 36.9	Last Year (same wk):	up 35	up 29	up 34	up 117
TX Gulf: 6.3	3-yr avg.(4-wk. mov. Avg):	up 67	up 85	up 68	up 80

Source: USDA, Federal Grain Inspection Service.

Ocean Transportation

Table 17

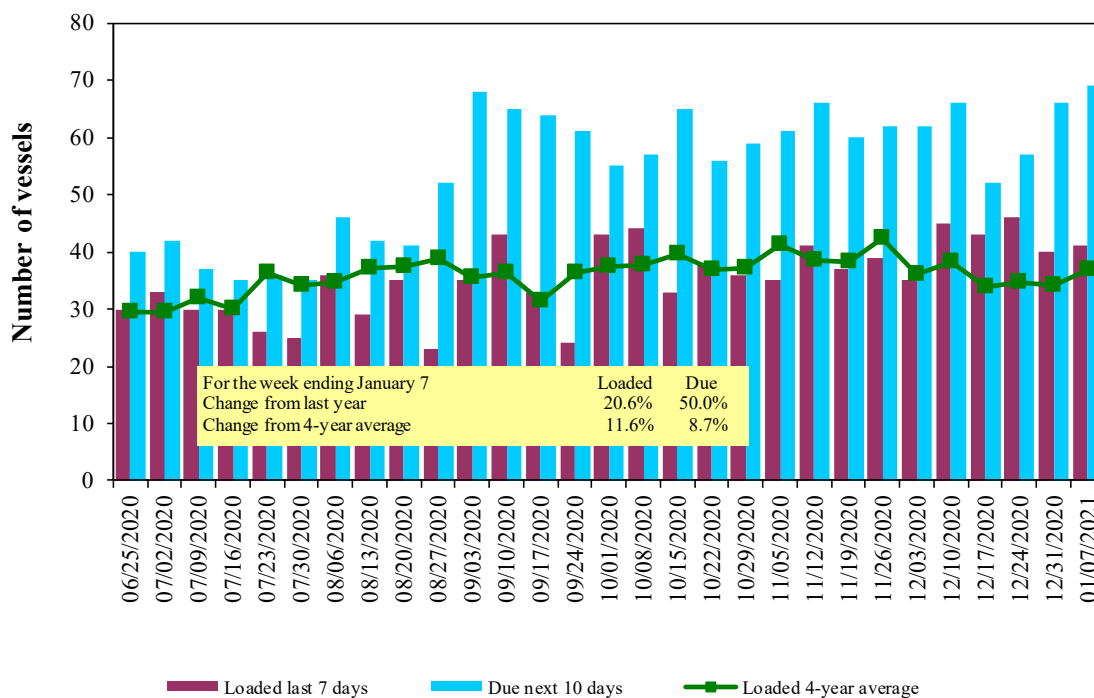
Weekly port region grain ocean vessel activity (number of vessels)

Date	Gulf			Pacific Northwest
	In port	Loaded 7-days	Due next 10-days	In port
1/7/2021	39	41	69	16
12/31/2020	32	40	66	18
2020 range	(22...60)	(23...46)	(34...68)	(7...24)
2020 average	37	33	49	15

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

Figure 16

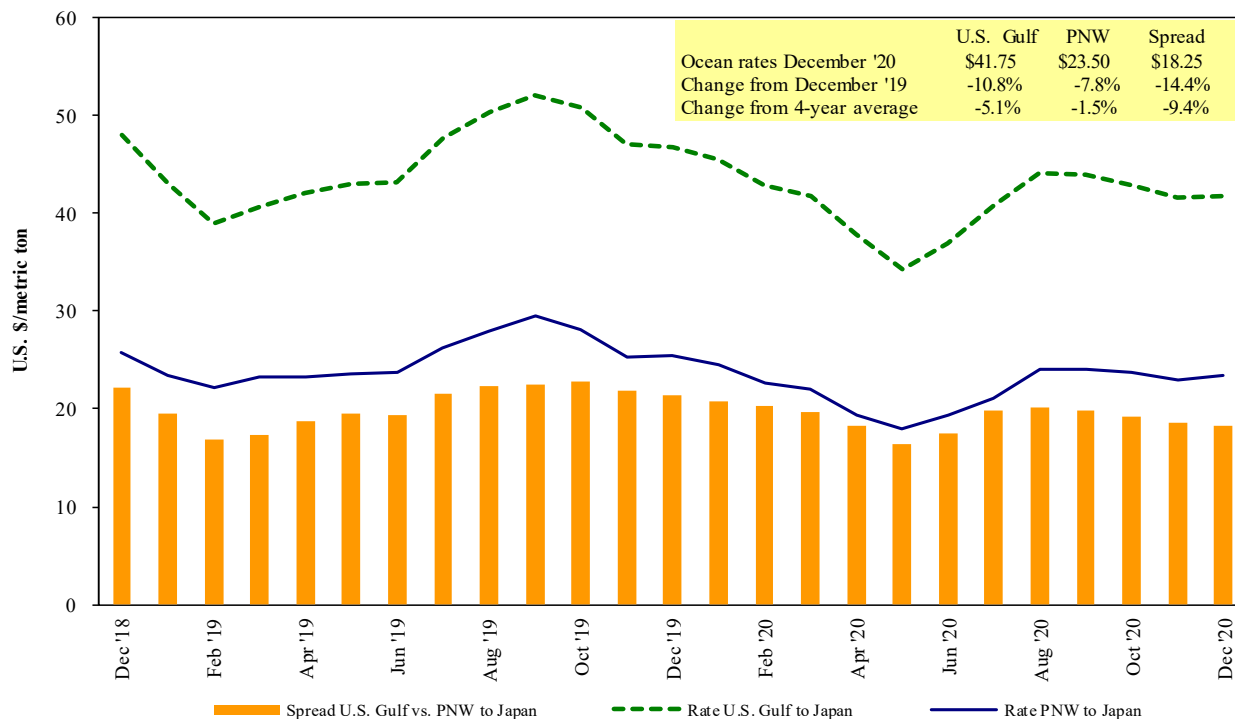
U.S. Gulf¹ vessel loading activity



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

Figure 17

Grain vessel rates, U.S. to Japan



Note: PNW = Pacific Northwest

Source: O'Neil Commodity Consulting

Table 18

Ocean freight rates for selected shipments, week ending 01/09/2021

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.

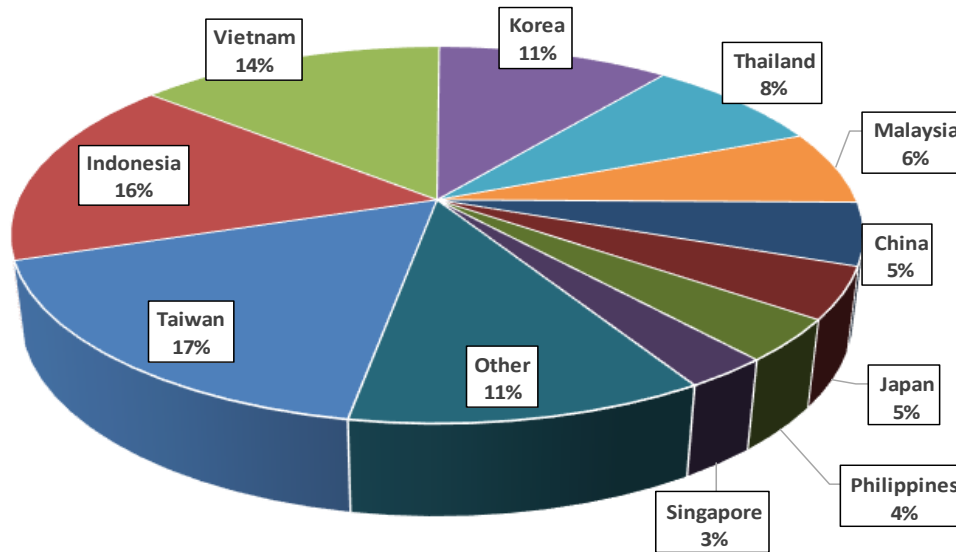
Note: Rates shown are per metric ton (2,204.62 lbs. = 1 metric ton), free on board (F.O.B), except where otherwise indicated;

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.

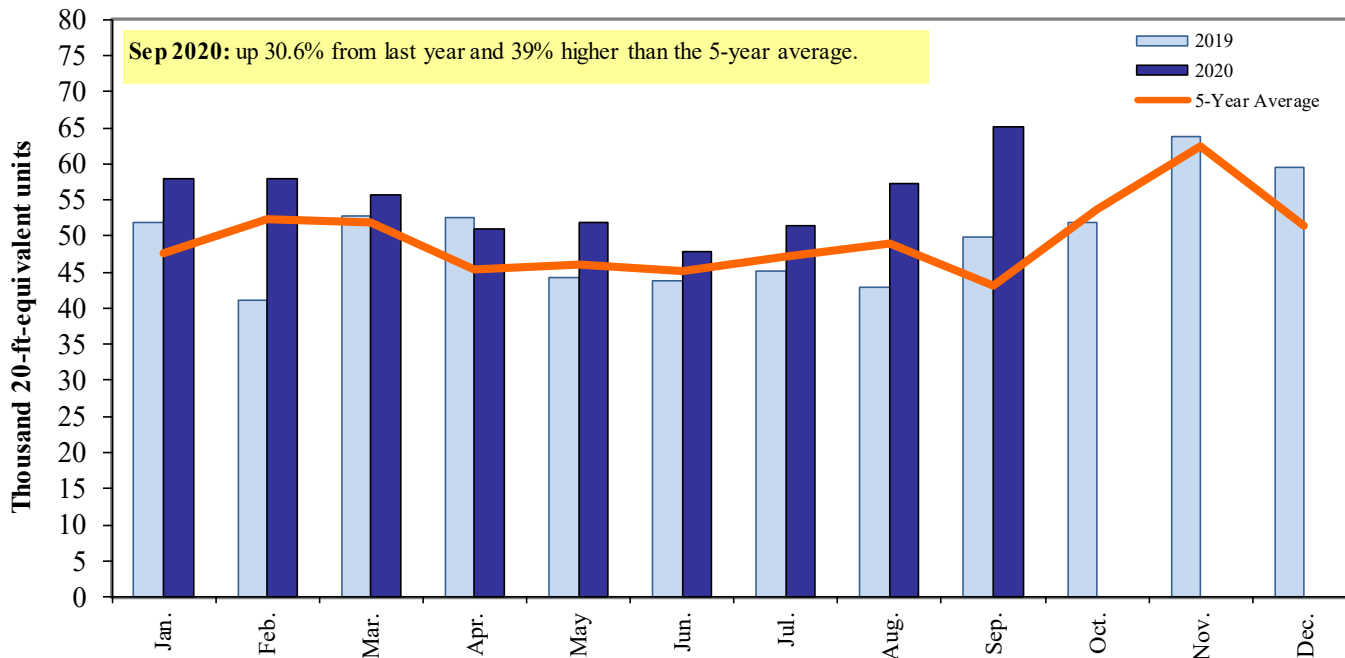
Figure 18
Top 10 destination markets for U.S. containerized grain exports, Jan-Sep 2020



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.

Contacts and Links

Coordinators

Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
Maria Williams	maria.williams@usda.gov	(202) 690 - 4430
Bernadette Winston	bernadette.winston@usda.gov	(202) 690 - 0487
Matt Chang	matt.chang@usda.gov	(202) 720 - 0299

Grain Transportation Indicators

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

Rail Transportation

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

Barge Transportation

April Taylor	april.taylor@usda.gov	(202) 720 - 7880
Bernadette Winston	bernadette.winston@usda.gov	(202) 690 - 0487
Matt Chang	matt.chang@usda.gov	(202) 720 - 0299

Truck Transportation

April Taylor	april.taylor@usda.gov	(202) 720 - 7880
Kranti Mulik	kranti.mulik@usda.gov	(202) 756 - 2577
Matt Chang	matt.chang@usda.gov	(202) 720 - 0299

Grain Exports

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

Ocean Transportation

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

Editor

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