

U.S. DEPARTMENT OF AGRICULTURE



Grain Transportation Report

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

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	WEEKLY HIGHLIGHTS
November 25, 2021	
	White House Announces Immediate and Near-Term Steps to Address Supply chain Issues
<u>Contents</u>	On November 9, the White House <u>announced</u> immediate and near-term steps to ease supply chain issues. One immediate step includes funding a Georgia Port Authority pop-up container yard project to alleviate congestion at the Port of Savannah. This project will allow the Georgia Port Authority to reallocate more than \$8 million to convert existing inland facilities into five pop-up container yards in Georgia and North Carolina. Under the plan, the Port of Savannah will transfer containers via rail and truck further inland so that they can be
Article/	closer to their destination. Near-term steps include launching programs to modernize ports and marine highways with more than \$240
Calendar	million in grant funding in the next 45 days; identifying projects for U.S. Army Corps of Engineers construction at coastal ports and
Grain	inland waterways in the next 60 days (including a roadmap for more than \$4 billion in funding to repair outdated infrastructure and deepen harbors for larger cargo ships); prioritizing key ports for modernization and expansion in the next 90 days; and announcing more
Transportation	than \$475 million in additional funding for port and marine highway infrastructure in the next 90 days.
Indicators	
	New Supply Chain Initiatives Announced by FMC
Rail	On November 17, the Federal Maritime Commission (FMC) <u>announced</u> the convening of six Supply Chain Innovation Teams to detect and implement improvements to the process and timing of return and delivery of containers to marine terminals. The goals of the Teams
Barge	are two-fold: for truckers to return an empty container to a terminal and pick-up a loaded container (known as "double move") and to bring certainty and predictability to the "earliest return date" process, a major source of complaint and uncertainty with exporters. The Teams will consist of executives from each ocean carrier operating in an alliance and from the marine terminal operators that serve them. The Teams will focus on improving conditions at the Ports of Los Angeles, Long Beach, New York, and New Jersey.
Truck	
	STB Announces Hearing on Competitive Switching
Exports	On November 12, the Surface Transportation Board (STB) <u>announced</u> it would hold a two-day public hearing on competitive switching on March 15-16, 2022, in Washington, D.C. Competitive switching refers to a shipper's ability to access an alternate railroad through its incumbent railroad. For example, in Canada, shippers within 30 kilometers (18 miles) of an interchange with another carrier can switch carriers, and the incumbent railroad is compensated at a pre-determined rate. In the United States, competitive switching is currently
Ocean	available, but the conditions under which STB grants access are less clear. The STB can mandate a competitive switch, but a shipper must demonstrate uncompetitive conduct by the railroad. Few requests have been filed in the United States, and none have been granted.
Brazil	Snapshots by Sector
Mexico	Export Sales For the week ending November 11, unshipped balances of wheat, corn, and soybeans for marketing year 2021/22 totaled 47.7 million metric tons (mmt), down 22 percent from same time last year and down 2 percent from the previous week. Net corn export sales were 0.905 mmt, down 15 percent from the previous week. Net soybean export sales were 1.383 mmt, up 13 percent from the previous week.
Grain Truck/Ocean Rate Advisory	Net weekly wheat export sales were 0.399 mmt, up 40 percent from the previous week.
Datasets	Rail U.S. Class I railroads originated 25,336 grain carloads during the week ending November 13. This was unchanged from the previous week, 13 percent less than last year, and 4 percent more than the 3-year average.
Specialists	Average December shuttle secondary railcar bids/offers (per car) were \$510 above tariff for the week ending November 18. This was \$134 more than last week and \$504 more than this week last year. There were no non-shuttle bids/offers this week.
Subscription Information 	Barge For the week ending November 20, barged grain movements totaled 814,495 tons. This was 8 percent less than the previous week and 16 percent lower than the same period last year.
The next	For the week ending November 20, 497 grain barges moved down river —60 barges less than the previous week. There were 891 grain barges unloaded in the New Orleans region, 2 percent less than last week.
release is December 2, 2021	Ocean For the week ending November 18, 37 oceangoing grain vessels were loaded in the Gulf—unchanged from the same period last year. Within the next 10 days (starting November 19), 47 vessels were expected to be loaded—22 percent fewer than the same period last year.
	As of November 18, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$70.00. This was 10 percent lower than the previous week. The rate from the Pacific Northwest to Japan was \$37.50 per mt, 11 percent lower than the previous week.
	Fuel For the week ending November 22, the U.S. average diesel fuel price decreased by 1.0 cents from the previous week to \$3.724 per gallon, \$1.26 above the same week last year. This is the first time in 9 weeks that the national average diesel price has declined.

Preferred citation: U.S. Department of Agriculture, Agricultural Marketing Service. *Grain Transportation Report.* November 25, 2021. Web: <u>http://dx.doi.org/10.9752/TS056.11-25-2021</u>

Feature Article/Calendar

U.S.-to-Mexico Soybean-Export Shares by Transportation Mode

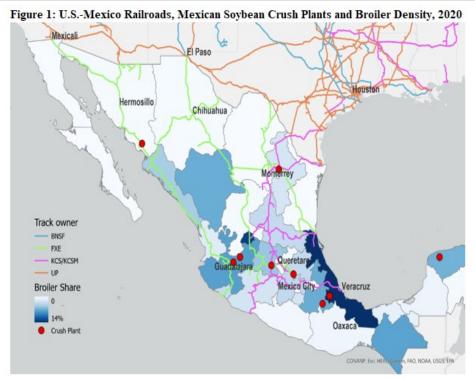
From an agricultural trade perspective, Mexico and the United States have long enjoyed a mutually beneficial relationship. Mexico is one of the largest destinations for U.S. exports of grains and oil seeds. Since marketing year (MY) 2016/17, Mexico is consistently one of the top five importers of U.S soybeans (*GTR* table 14). Over the last 5 years, the modal share of U.S.-to-Mexico soybean exports has increasingly favored rail over ocean vessel. This article—focusing on soybean transportation—is the third in a series that examines the transportation patterns of U.S. grain exports to Mexico. Previous articles discussed the transportation and modal shares of U.S. corn exports (*GTR* 10/7/2021) and wheat exports (*GTR* 9/2/2021) to Mexico.

U.S. is Mexico's Primary Soybean Supplier

Since the North American Free Trade Agreement (NAFTA) took effect in 1994, Mexico has relied on U.S. soybean imports for supplies. Similar to U.S. corn and wheat exports, U.S. soybean exports to Mexico benefit from the zero-tariff structure and from strategic land and water access points. According to <u>data</u> from USDA's Foreign Agricultural Service (FAS), from 1994 to 2020, Mexico's soybean imports rose by 230 percent, with almost all of the volume originating from the United States. Over the last 5 marketing years, Mexico has imported an annual average of 5.3 million metric tons (mmt) of soybeans, representing 91 percent of the country's total soybean supply. During MY 2021/22, FAS estimates that Mexico will import 93 percent—a record 6.2 mmt—of its total soybean supplies.

Over the last 3 years, the U.S. share of Mexico's soybean imports has declined due to Mexico diversifying their soybean supply chain. Most of Mexico's non-U.S. soybean import volumes are Brazilian soybeans. However, during this recalibration period, 74 percent of the country's annual soybean imports during MY 2020/21 came from the U.S.

Increased Mexican Soybean Processing Capacity Increases Demand for U.S. Grain Transportation The primary driver of Mexico's increased imports is the expansion and modernization of their domestic soybean processing industry. This expansion has been driven by increasing



Source: Livestock data El Servicio de Informacion Agroalimentaria y Pesquera, Gobierno de Mexico; Rail Network Bureau of Transportation Statistics, Department of Transportation

domestic broiler and hog production and increasing domestic vegetable oil demand. Data from Mexico's <u>Servicio de</u> <u>Información Agroalimentaria y Pesquera</u> (SIAP), since 2016, shows that the commercial poultry flock has expanded by 10 percent and the hog herd by 13 percent. Growth of the Mexican livestock numbers has increased Mexican feedstock demand which has raised soybean imports. This has been a positive catalyst for U.S. soybean exports and increased demand for transportation services. An overview of Mexico's total hog and broiler distribution by State shows how the colocation of Mexico's soybean processing facilities and major rail and ocean vessel ports of entry strategically influence the transportation of U.S. soybean exports to Mexico (fig. 1).

Modal Shares for U.S.-to-Mexico Soybean Exports: Rail vs Ocean

Since MY 2016/17, U.S. soybean exports to Mexico have recently favored rail over ocean vessel. According to USDA Federal Grain Inspection Services (FGIS) <u>data</u>, at the conclusion of MY 2016/17, the U.S. modal shares of soybean exports were 51 percent ocean vessel and 49 percent rail. At the end of MY 2020/21, the modal shares were 32 percent ocean vessel and 68 percent rail.

Rail. Using data from FGIS, over the last 5 years, the United States exported an annual average of 2.7 mmt of soybeans to Mexico by rail. This figure has been steadily rising and reached a record level of just over 3 mmt during MY 2020/21, or 68 percent of the total volume. In descending order by volume, State origins of soybean exports by rail are as follows: Nebraska, (27 percent), Kansas (24 percent), Missouri (23 percent), Iowa (14 percent), and Minnesota (6 percent). Collectively, these amount to 94 percent of U.S.-to-Mexico soybean exports by rail. While the export origins by State possess some variability over the last 5 years, these percentages of soybeans originating in the core States—Nebraska, Kansas, Missouri, and Iowa—have remained in a tight range. Volume fluctuations have occurred at the peripheral States of Minnesota, Louisiana, and Illinois.

Whether the rail cars enter Mexico from the United States through the ports of entry in Texas, Arizona, or California, rail lines owned and operated by Kansas City Southern de México (KCSM) and Ferromex deliver soybeans to States with key soybean processing capabilities in Sonora, Jalisco, Nuevo Leon, and Guanajuato (fig. 1).

Ocean. According to FGIS data over the last 5 marketing years, ocean vessels shipped an annual average of 1.6 mmt, or 39 percent of the total annual export volumes of soybeans to Mexico. Of this volume, 98 percent of the soybeans originated at ports on the Mississippi River in Louisiana over the past 5 years. Figure 1 illustrates how U.S. soybean exports by ocean vessel to the Port of Veracruz are supported by the regional concentration of both soybean processing capabilities and commercial livestock in the States of Veracruz, Chiapas, Puebla, and Oaxaca. Based on data from SCIPA, the States of Veracruz, Chiapas, Puebla, and Oaxaca represent 30 percent of Mexico's broiler flock and 28 percent of the domestic hog herd. According to a report by FAS the <u>Port of Veracruz</u> is the most important Mexican port for U.S. agricultural exports. With its strategic access to the KCSM and the Ferromex rail lines, the port also offers highway access to move soybeans to processing locations in the States of Veracruz, Hidalgo, and Puebla, helping to distribute soybeans within the interior imported by ocean vessel. On the other hand, the strategic location of the Port of Veracruz also provides efficient import access for Brazilian soybeans.

Conclusion

The United States has long been the primary supplier of soybeans to Mexico. Factors—such as increased crushing capacity, livestock concentrations, and volumes demanded—have changed; so too have the transportation volume and pattern. Maturation of Mexico's domestic soybean processing industry to service the country's expanding broiler and hog population along with an evolving domestic agricultural trade policy will continue to influence soybean imports.

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Grain Transportation Indicators

Table 1

Grain transport cost indicators¹

	Truck	Ra	il	Barge	00	ean
For the week ending		Non-Shuttle	Shuttle		Gulf	Pacific
11/24/21	250	297	251	260	313	266
11/17/21	251	297	250	254	349	298

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 Upda	te: U.S. origins to export pos	ition price spreads (\$/busl	hel)
Commodity	Origin-destination	11/19/2021	11/12/2021
Corn	IL–Gulf	-0.70	-0.72
Corn	NE–Gulf	-0.78	-0.79
Soybean	IA–Gulf	-1.17	-1.06
HRW	KS–Gulf	-2.77	-2.72
HRS	ND–Portland	-1.37	-2.37

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.

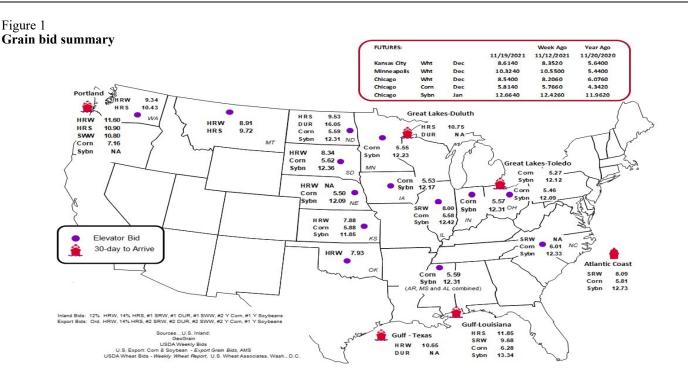


Table 3 Rail deliveries to port (carloads)¹

For the small or disc	Mississippi	Turner Calf	Pacific	Atlantic &	T - 4-1	We also and the s	Cross-border Mexico ³
For the week ending	Gulf	Texas Gulf	Northwest	East Gulf	Total	Week ending	MEXICO
11/17/2021 ^p	1,257	1,512	7,974	1,091	11,834	11/13/2021	2,760
11/10/2021 ^r	1,227	1,824	7,621	659	11,331	11/6/2021	3,127
2021 YTD ^r	45,265	59,917	263,522	17,258	385,962	2021 YTD	128,247
2020 YTD ^r	32,885	50,046	244,371	17,252	344,554	2020 YTD	111,634
2021 YTD as % of 2020 YTD	138	120	108	100	112	% change YTD	115
Last 4 weeks as $\%$ of 2020^2	70	70	97	82	88	Last 4wks. % 2020	133
Last 4 weeks as % of 4-year avg. ²	145	136	131	131	133	Last 4wks. % 4 yr.	116
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.

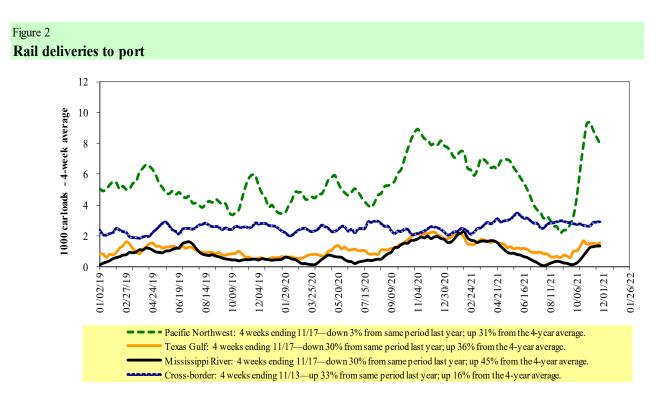
 2 Compared with same 4-weeks in 2020 and prior 4-year average.

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.



Source: USDA, Agricultural Marketing Service.

Table 4 Class I rail carrier grain car bulletin (grain carloads originated)

For the week ending:	Ea	East		West		U.S. total	Ca	nada
11/13/2021	CSXT	NS	BNSF	KCS	UP	U.S. 101ai	CN	СР
This week	2,309	2,287	13,658	1,123	5,959	25,336	4,509	5,266
This week last year	2,696	3,070	15,034	1,173	7,135	29,108	5,390	5,648
2021 YTD	80,492	105,955	525,046	54,742	277,054	1,043,289	185,081	214,478
2020 YTD	77,689	111,046	521,506	50,127	250,156	1,010,524	200,185	220,623
2021 YTD as % of 2020 YTD	104	95	101	109	111	103	92	97
Last 4 weeks as % of 2020*	107	70	93	114	93	92	72	84
Last 4 weeks as % of 3-yr. avg.**	108	82	106	129	116	107	87	94
Total 2020	91,659	129,797	613,630	57,782	296,701	1,189,569	238,147	261,778

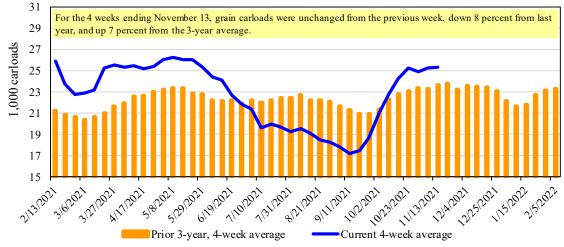
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

**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

Fo	or the week ending:				Deliver	y period			
	11/18/2021	Dec-21	Dec-20	Jan-22	Jan-21	Feb-22	Feb-21	Mar-22	Mar-21
BNSF ³	COT grain units	0	no bids	0	no bids	0	no bids	0	no bids
	COT grain single-car	40	62	0	53	0	25	0	7
UP ⁴	GCAS/Region 1	no offer	n/a	n/a					
	GCAS/Region 2	no offer	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.

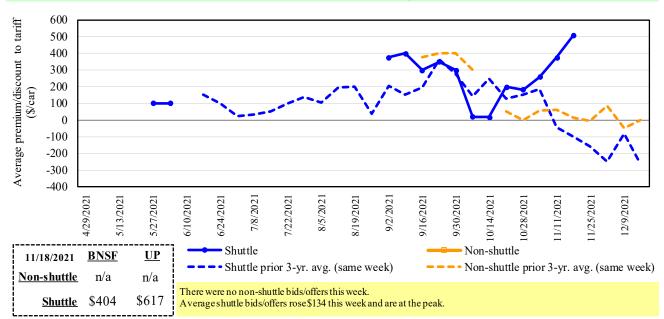
⁴UP - GCAS = Union Pacific Railroad Grain Car Allocation System.

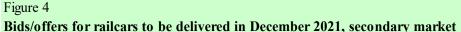
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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.





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.

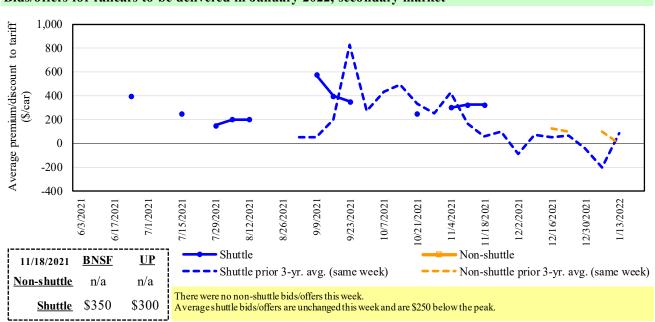
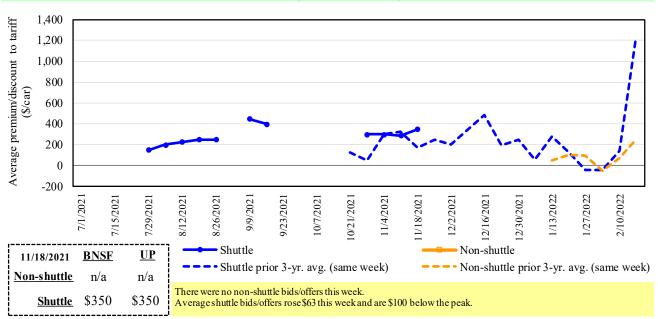


Figure 5 Bids/offers for railcars to be delivered in January 2022, secondary market

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.





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:			De	livery period		
	11/18/2021	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22
	BNSF-GF	n/a	n/a	n/a	n/a	n/a	n/a
le	Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
-shuttle	Change from same week 2020	n/a	n/a	n/a	n/a	n/a	n/a
Non-s	UP-Pool	n/a	n/a	n/a	n/a	n/a	n/a
Z	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
	BNSF-GF	404	350	350	200	(138)	n/a
	Change from last week	82	25	25	n/a	63	n/a
ttle	Change from same week 2020	392	100	n/a	n/a	n/a	n/a
Shuttle	UP-Pool	617	300	350	300	n/a	n/a
	Change from last week	186	n/a	100	0	n/a	n/a
	Change from same week 2020	617	0	100	100	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

			Tariff	Fuel	Tariff plus surch		Percent change
November 2021	Origin region ³	Destination region ³	rate/car	surcharge _ per car	metric ton	bushel ²	Y/Y ⁴
Unit train	····		Tate/cai	per cu	incure ton		-, -
Wheat	Wichita, KS	St. Louis, MO	\$3,695	\$132	\$38.00	\$1.03	3
	Grand Forks, ND	Duluth-Superior, MN	\$3,658	\$0	\$36.33	\$0.99	-13
	Wichita, KS	Los Angeles, CA	\$7,290	\$0	\$72.39	\$1.97	2
	Wichita, KS	New Orleans, LA	\$4,525	\$231	\$47.23	\$1.29	4
	Sioux Falls, SD	Galveston-Houston, TX	\$7,026	\$0	\$69.77	\$1.90	3
	Colby, KS	Galveston-Houston, TX	\$4,801	\$254	\$50.19	\$1.37	4
	Amarillo, TX	Los Angeles, CA	\$5,121	\$353	\$54.36	\$1.48	5
Corn	Champaign-Urbana, IL	New Orleans, LA	\$4,000	\$262	\$42.32	\$1.07	7
com	Toledo, OH	Raleigh, NC	\$8,130	\$202	\$80.73	\$2.05	4
	Des Moines, IA	Davenport, IA	\$2,505	\$55	\$25.43	\$0.65	4
	Indianapolis, IN	Atlanta, GA	\$6,227	\$0	\$61.84	\$1.57	4
	Indianapolis, IN	Knoxville, TN	\$5,247	\$0	\$52.11	\$1.32	4
	Des Moines, IA	Little Rock, AR	\$4,000	\$163	\$41.34	\$1.05	6
	Des Moines, IA	Los Angeles, CA	\$5,880	\$474	\$63.10	\$1.60	8
Soybeans	Minneapolis, MN	New Orleans, LA	\$3,631	\$342	\$39.45	\$1.07	9
	Toledo, OH	Huntsville, AL	\$6,714	\$0	\$66.67	\$1.81	2
	Indianapolis, IN	Raleigh, NC	\$7,422	\$0	\$73.70	\$2.01	4
	Indianapolis, IN	Huntsville, AL	\$5,367	\$0	\$53.30	\$1.45	2
	Champaign-Urbana, IL	New Orleans, LA	\$4,745	\$262	\$49.72	\$1.35	6
Shuttle train	1 8)	,	*)				
Wheat	Great Falls, MT	Portland, OR	\$4,193	\$0	\$41.64	\$1.13	4
	Wichita, KS	Galveston-Houston, TX	\$4,411	\$0	\$43.80	\$1.19	4
	Chicago, IL	Albany, NY	\$6,670	\$0	\$66.24	\$1.80	5
	Grand Forks, ND	Portland, OR	\$5,851	\$0	\$58.10	\$1.58	3
	Grand Forks, ND	Galveston-Houston, TX	\$5,721	\$0	\$56.81	\$1.55	-5
	Colby, KS	Portland, OR	\$6,012	\$416	\$63.83	\$1.74	5
Corn	Minneapolis, MN	Portland, OR	\$5,380	\$0	\$53.43	\$1.36	4
	Sioux Falls, SD	Tacoma, WA	\$5,340	\$0	\$53.03	\$1.35	4
	Champaign-Urbana, IL	New Orleans, LA	\$3,920	\$262	\$41.52	\$1.05	7
	Lincoln, NE	Galveston-Houston, TX	\$4,080	\$0	\$40.52	\$1.03	5
	Des Moines, IA	Amarillo, TX	\$4,420	\$205	\$45.92	\$1.17	6
	Minneapolis, MN	Tacoma, WA	\$5,380	\$0	\$53.43	\$1.36	4
	Council Bluffs, IA	Stockton, CA	\$5,300	\$0	\$52.63	\$1.34	4
Soybeans	Sioux Falls, SD	Tacoma, WA	\$6,050	\$0	\$60.08	\$1.64	3
	Minneapolis, MN	Portland, OR	\$6,100	\$0	\$60.58	\$1.65	3
	Fargo, ND	Tacoma, WA	\$5,950	\$0	\$59.09	\$1.61	3
	Council Bluffs, IA	New Orleans, LA	\$4,975	\$302	\$52.40	\$1.43	6
	Toledo, OH	Huntsville, AL	\$4,954	\$0	\$49.20	\$1.34	0
	Grand Island, NE	Portland, OR	\$5,360	\$426	\$57.45	\$1.56	8

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.

 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.

³Regional 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.

Date	: Novembe	r 2021		Fuel	Tari	ff rate plus	Percent
	Origin		Tariff rate	surcharge		harge per:	change ⁴
Commodity	state	Destination region	per car ¹	per car ²	metric ton ³	bus hel ³	Y/Y
Wheat	MT	Chihuahua, CI	\$7,699	\$0	\$78.67	\$2.14	4
	OK	Cuautitlan, EM	\$6,900	\$181	\$72.35	\$1.97	5
	KS	Guadalajara, JA	\$7,619	\$711	\$85.11	\$2.31	6
	TX	Salinas Victoria, NL	\$4,420	\$111	\$46.30	\$1.26	4
Corn	IA	Guadalajara, JA	\$9,102	\$632	\$99.46	\$2.52	6
	SD	Celaya, GJ	\$8,300	\$0	\$84.81	\$2.15	2
	NE	Queretaro, QA	\$8,322	\$384	\$88.95	\$2.26	4
	SD	Salinas Victoria, NL	\$6,905	\$0	\$70.55	\$1.79	0
	MO	Tlalnepantla, EM	\$7,687	\$374	\$82.37	\$2.09	4
	SD	Torreon, CU	\$7,825	\$0	\$79.95	\$2.03	2
Soybeans	MO	Bojay (Tula), HG	\$8,647	\$588	\$94.35	\$2.57	5
	NE	Guadalajara, JA	\$9,207	\$611	\$100.31	\$2.73	4
	IA	El Castillo, JA	\$9,510	\$0	\$97.17	\$2.64	1
	KS	Torreon, CU	\$8,109	\$431	\$87.26	\$2.37	4
Sorghum	NE	Celaya, GJ	\$7,932	\$562	\$86.79	\$2.20	6
	KS	Queretaro, QA	\$8,108	\$226	\$85.15	\$2.16	2
	NE	Salinas Victoria, NL	\$6,713	\$182	\$70.44	\$1.79	2
	NE	Torreon, CU	\$7,225	\$399	\$77.90	\$1.98	5

 Table 8

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

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.

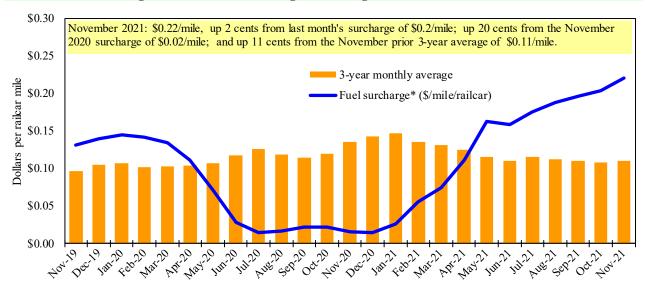
³Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

⁴Percentage change calculated using tariff rate plus fuel surchage; 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.

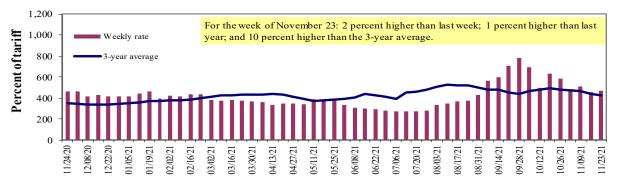
**CSX strike price changed from \$2.00/gal. to \$3.75/gal. starting January 1, 2015.

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}



¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-week moving average of the 3-year average. *Source: USDA, Agricultural Marketing Service.

Table 9Weekly barge freight rates: Southbound only

	8 8	Twin Cities	Mid- Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo- Memphis
Rate ¹	11/23/2021 11/16/2021	- 439	465 462	468 457	373 362	448 460	448 460	332 327
\$/ton	11/23/2021 11/16/2021	27.17	24.74 24.58	21.72 21.20	14.88 14.44	21.01 21.57	18.10 18.58	10.42 10.27
Curren	t week % chang	e from the s	ame week:					
	Last year 3-year avg. ²	-	4 7	1 10	7 11	-2 19	-2 19	3 4
Rate ¹	December February	-	-	422 418	325 303	369 325	369 325	301 279

¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-week moving average; ton = 2,000 pounds; "-" not available due to lock closure. Source: USDA, A gricultural Marketing Service.

Figure 9 Benchmark tariff rates

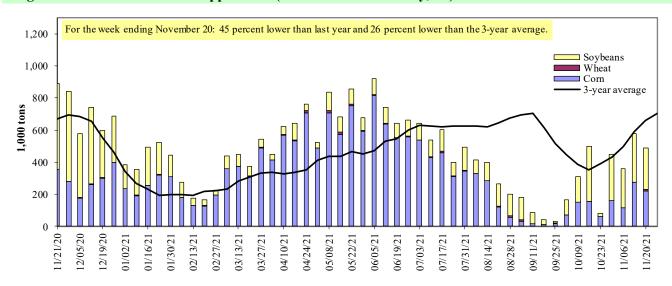
Calculating barge rate per ton: (Rate * 1976 tariff benchmark rate per ton)/100

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 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 11/20/2021	Corn	Wheat	Soybe ans	Other	Total
Mississippi River					
Rock Island, IL (L15)	78	8	97	2	184
Winfield, MO (L25)	131	8	176	0	314
Alton, IL (L26)	236	8	250	0	494
Granite City, IL (L27)	222	8	260	0	489
Illinois River (La Grange)	125	0	59	0	184
Ohio River (Olmsted)	127	0	183	0	310
Arkansas River (L1)	0	3	13	0	15
Weekly total - 2021	349	10	456	0	814
Weekly total - 2020	497	18	458	0	973
2021 YTD ¹	21,438	1,529	9,099	245	32,310
2020 YTD ¹	16,181	1,660	14,926	203	32,970
2021 as % of 2020 YTD	132	92	61	121	98
Last 4 weeks as $\%$ of 2020^2	72	111	80	14	76
Total 2020	18,942	1,765	19,205	237	40,149

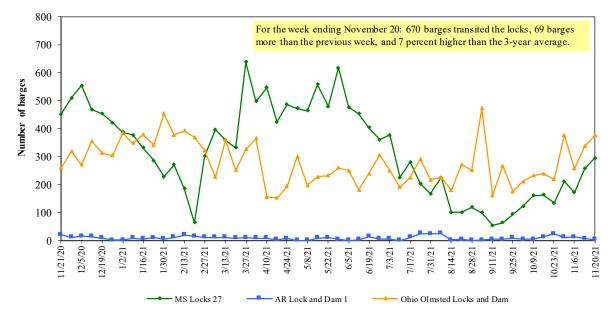
¹ Weekly total, YTD (year-to-date), and calendar year total include MI/27, OH/Olmsted, and AR/1; Other refers to oats, barley, sorghum, and rye. Total may not add exactly due to rounding.

² As a percent of same period in 2020.

Note: L (as in "L15") refers to a lock, locks, or locks and dam facility.

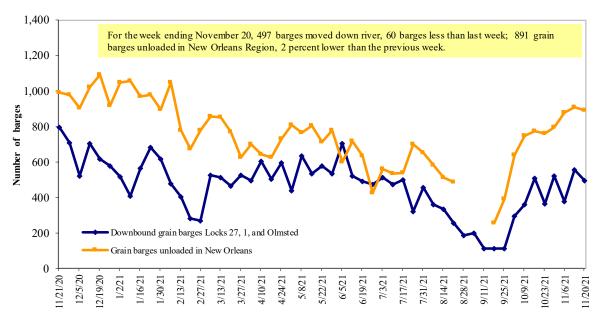
Source: U.S. Army Corps of Engineers.

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.

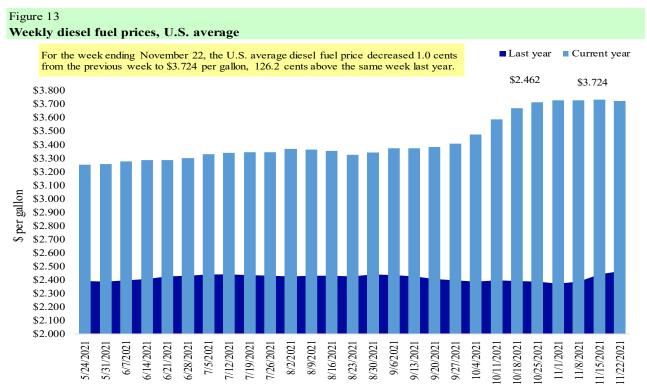
Source: U.S. Army Corps of Engineers and USDA, Agricultural Marketing Service.

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.

	way diesel prices, week ending	~	Chang	,
Region	Location	Price	Week ago	Year ago
Ι	East Coast	3.690	-0.017	1.184
	New England	3.666	0.009	1.108
	Central Atlantic	3.847	-0.005	1.142
	Lower Atlantic	3.595	-0.025	1.230
II	Midwest	3.617	-0.014	1.258
III	Gulf Coast	3.457	-0.017	1.247
IV	Rocky Mountain	3.841	0.003	1.326
V	West Coast	4.421	-0.003	1.414
	West Coast less California	4.009	0.000	1.296
	California	4.784	0.015	1.531
Total	United States	3.724	-0.010	1.262

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.



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)

			Whe	eat			Corn	Soybe ans	Total
For the week ending	HRW	SRW	HRS	SWW	DUR	All wheat			
Export balances ¹									
11/11/2021	1,835	575	1,184	772	52	4,418	25,201	18,049	47,668
This week year ago	1,567	413	1,460	2,032	202	5,673	26,827	28,941	61,441
Cumulative exports-marketing year ²									
2021/22 YTD	3,500	1,449	2,519	1,710	97	9,275	7,779	16,557	33,611
2020/21 YTD	4,646	955	3,378	2,256	342	11,577	8,429	22,222	42,228
YTD 2021/22 as % of 2020/21	75	152	75	76	28	80	92	75	80
Last 4 wks. as % of same period 2020/21*	117	138	74	36	31	75	94	70	81
Total 2020/21	8,331	1,744	7,337	6,281	654	24,347	66,702	60,287	151,336
Total 2019/20	9,526	2,318	6,960	4,751	922	24,477	42,622	43,994	111,094

¹ Current unshipped (outstanding) export sales to date.

² Shipped export sales to date; 2021/22 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 11/11/2021		Total commitments ²	% change	Exports ³
	2021/22	2020/21	current MY	3-yr. avg.
	current MY	last MY	from last MY	2019-21
	1,000 mt -			
Mexico	9,095	7,322	24	14,817
Japan	2,843	4,795	(41)	11,082
China	11,925	10,949	9	7,920
Columbia	1,754	1,826	(4)	4,491
Korea	72	732	(90)	3,302
Top 5 importers	25,690	25,624	0	41,613
Total U.S. corn export sales	32,980	35,256	(6)	53,145
% of projected exports	52%	50%		
Change from prior week ²	905	1,089		
Top 5 importers' share of U.S. corn				
export sales	78%	73%		78%
USDA forecast November 2021	63,613	70,051	(9)	
Corn use for ethanol USDA forecast,				
November 2021	133,350	127,711	4	

¹Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2020/21; marketing year (MY) = Sep 1 - Aug 31.

²Cumulative 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. ³FAS marketing year ranking reports (carry over plus accumulated export); yr. = year; avg. = average.

r AS marketing year fanking reports (carry over plus accumulated export), yi. – year, avg. – avera

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 11/11/2021	Total commitments ²		% change	Exports ³
	2021/22	2020/21	current MY	3-yr. avg.
	current MY	last MY	from last MY	2018-20
				- 1,000 mt -
China	18,849	28,613	(34)	21,666
Mexico	2,334	2,877	(19)	4,754
Egypt	1,271	1,407	(10)	3,093
Indonesia	407	851	(52)	2,325
Japan	889	886	0	2,275
Top 5 importers	23,750	34,634	(31)	34,113
Total U.S. soybean export sales	34,606	51,163	(32)	50,758
% of projected exports	62%	83%		
change from prior week ²	1,383	1,331		
Top 5 importers' share of U.S.				
soybean export sales	69%	68%		67%
USDA forecast, November 2021	55,858	61,717	(9)	

¹Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2020/21; 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 (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 15

Top 10 importers¹ of all U.S. wheat

For the week ending 11/11/2021	Total C	ommitments ²	% change	Exports ³	
U U	2021/22	2020/21	current MY	3-yr. avg.	
	current MY	last MY	from last MY	2018-20	
		1,000 mt -		- 1,000 mt -	
Mexico	2,432	2,278	7	3,388	
Philippines	2,100	2,372	(11)	3,121	
Japan	1,423	1,596	(11)	2,567	
Korea	818	1,169	(30)	1,501	
Nigeria	1,463	791	85	1,490	
China	848	1,723	(51)	1,268	
Taiwan	549	771	(29)	1,187	
Indonesia	67	607	(89)	1,131	
Thailand	375	495	(24)	768	
Italy	184	487	(62)	681	
Top 10 importers	10,258	12,289	(17)	17,102	
Total U.S. wheat export sales	13,692	17,250	(21)	24,617	
% of projected exports	58%	64%			
change from prior week ²	399	192			
Top 10 importers' share of U.S.					
wheat export sales	75%	71%		69%	
USDA forecast, November 2021	23,433	27,030	(13)		

¹ Based on USDA, Foreign Agricultural Service(FAS) marketing year ranking reports for 2020/21; 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)

	For the week ending	Previous	Current week			2021 YTD as	Last 4-we	eeks as % of:	
Port regions	11/18/21	week*	as % of previous	2021 YTD*	2020 YTD*	% of 2020 YTD	Last year	Prior 3-yr. avg.	2020 total*
Pacific Northwest									
Wheat	121	90	135	12,445	14,146	88	38	32	15,966
Corn	61	0	n/a	12,430	8,720	143	13	11	9,969
Soybeans	922	700	132	11,059	10,763	103	122	186	14,028
Total	1,104	790	140	35,934	33,629	107	94	114	39,963
Vississippi Gulf	, -			,)				
Wheat	15	79	19	3,011	3,278	92	310	148	3,422
Corn	304	561	54	35,713	25,557	140	93	102	28,781
Soybeans	392	1,343	29	19,766	29,612	67	81	105	38,013
Total	711	1,983	36	58,490	58,447	100	87	105	70,215
Texas Gulf		,		,	,				,
Wheat	0	184	0	3,614	4,091	88	94	84	4,248
Corn	19	27	72	552	682	81	75	141	723
Soybeans	55	54	101	1,410	1,345	105	77	230	2,098
Total	74	265	28	5,576	6,118	91	81	146	7,068
nterior				,	,				,
Wheat	51	32	160	2,670	1,944	137	92	116	2,263
Corn	224	243	92	8,844	7,698	115	136	124	8,683
Soybeans	166	197	84	5,627	6,341	89	93	111	7,274
Total	441	472	93	17,140	15,982	107	110	117	18,220
Great Lakes									
Wheat	0	27	1	422	771	55	71	54	891
Corn	0	20	0	114	61	187	279	220	111
Soybeans	108	124	87	532	805	66	120	208	1,111
Total	108	171	63	1,068	1,637	65	113	153	2,113
Atlantic									
Wheat	0	0	n/a	125	35	354	0	0	65
Corn	0	0	n/a	81	33	245	n/a	216	33
Soybeans	77	68	113	1,635	1,253	130	91	150	1,870
Total	77	68	112	1,840	1,321	139	94	151	1,968
U.S. total from ports	*								
Wheat	187	411	46	22,286	24,265	92	72	61	26,854
Corn	608	852	71	57,734	42,751	135	90	91	48,301
Soybeans	1,719	2,486	69	40,028	50,118	80	95	133	64,394
Total	2,514	3,749	67	120,048	117,134	102	92	113	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 2020.

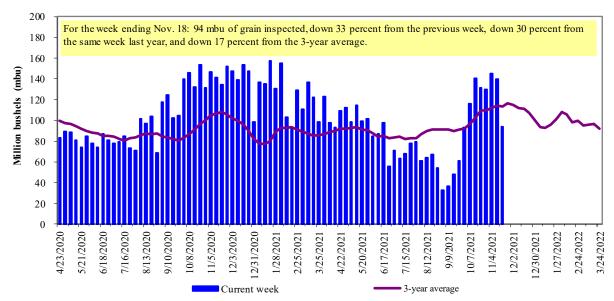
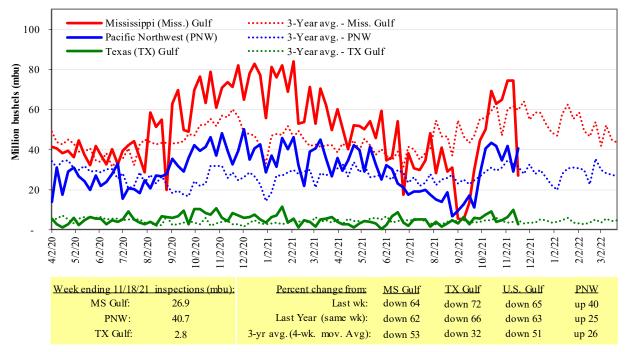


Figure 14 U.S. grain inspected for export (wheat, corn, and soybeans)

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

Source: USDA, Federal Grain Inspection Service.





Source: USDA, Federal Grain Inspection Service.

Table 17

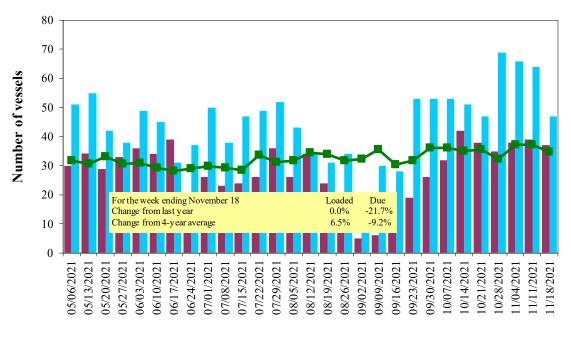
Weekly port region grain ocean vessel activity (number of vessels)

				Pacific
		Gulf		Northwest
		Loaded	Due next	
Date	In port	7-days	10-days	In port
11/18/2021	50	37	47	25
11/11/2021	49	39	64	19
2020 range	(2260)	(2346)	(3468)	(724)
2020 average	37	33	49	15

Note: n/a = not available due to holiday; *Incomplete data due to Hurricane Ida

Source: USDA, Agricultural Marketing Service.





Loaded last 7 days

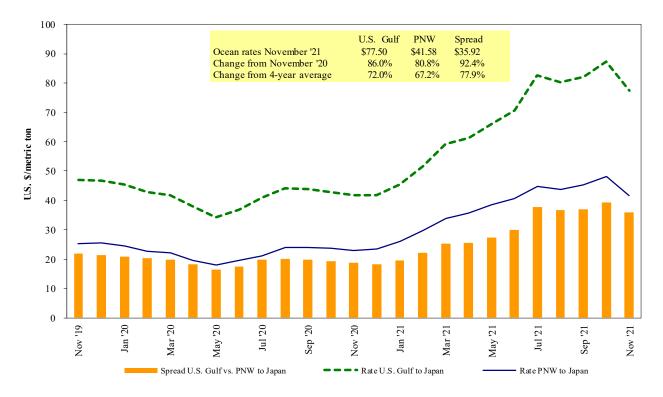
Due next 10 days

Loaded 4-year average

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 11/20/2021

Export	Import	Grain	Loading	Volume loads	Freight rate
region	region	types	date	(metric tons)	(US\$/metric ton)
U.S. Gulf	Japan	Heavy grain	Oct 1/10, 2021	48,000	70.10
U.S. Gulf	Japan	Heavy grain	Aug 21/Sep 9, 2021	50,000	60.90
U.S. Gulf	Japan	Heavy grain	Aug 1/10, 2021	50,000	69.75
U.S. Gulf	Sudan	Wheat	Sep 1/10, 2021	49,000	79.12*
U.S. Gulf	China	Heavy grain	Dec 1/10, 2021	65,000	76.00
U.S. Gulf	China	Heavy grain	Nov 1/10, 2021	66,000	89.00
U.S. Gulf	China	Heavy grain	Oct 1/10, 2021	55,000	81.50
U.S. Gulf	Djibouti	Wheat	Jul 6/16, 2021	5,880	85.70*
U.S. Gulf	S. Korea	Heavy grain	Dec 1/10, 2021	51,000	940.00
PNW	Japan	Wheat	Sep 1, 2021	52,170	56.55*
PNW	Japan	Wheat	Jul 25/ Aug 5, 2021	32,590	64.00
PNW	Taiwan	Wheat	Nov 1/10, 2021	49,580	67.30
PNW	Taiwan	Heavy grain	Aug 20/30, 2021	35,000	64.20*
PNW	Taiwan	Wheat	Aug 1/10, 2021	55,000	54.95
Brazil	N. China	Heavy grain	Jan 1/5, 2022	64,000	58.25
Australia	Japan	Barley	Nov 1/10, 2021	55,000	65.50
River Plate	South Korea	Corn	Oct 21, 2021	67,000	79.80

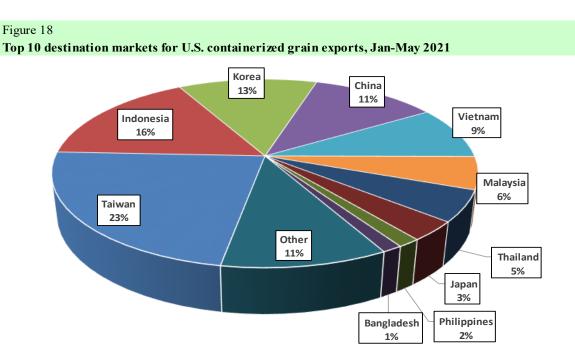
^{*}50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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 2020, containers were used to transport 10 percent of total U.S. waterborne grain exports. Approximately 66 percent of U.S. waterborne grain exports in 2020 went to Asia, of which 14 percent were moved in containers. Approximately 95 percent of U.S. waterborne containerized grain exports were destined for Asia.



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.

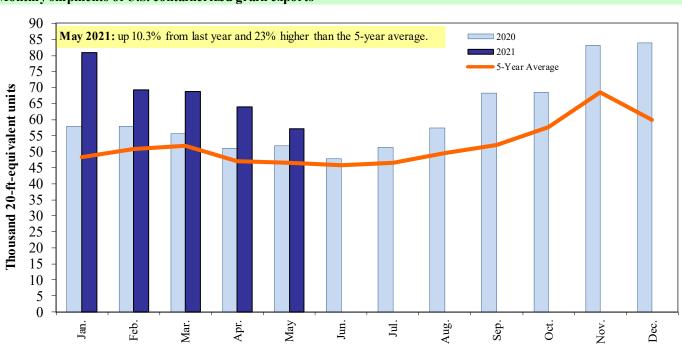


Figure 19 Monthly shipments of U.S. containerized grain exports

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, 120190, 120190, 230210, 230310, 230330, and 230990.

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

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Preferred citation: U.S. Department of Agriculture, Agricultural Marketing Service. *Grain Transportation Report.* November 25, 2021. Web: <u>http://dx.doi.org/10.9752/TS056.11-25-2021</u>.

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