USDA United States Department of Agriculture

Grain Transportation Report

A weekly publication of the Agricultural Marketing Service
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The next release is May 27, 2021

WEEKLY HIGHLIGHTS

USDA Releases First *World Agricultural Supply and Demand Estimates* of MY 2021/22

On May 12, USDA's World Agricultural Outlook Board (WAOB) released the first *World Agricultural Supply and Demand Estimates* (WASDE) for marketing year (MY) 2021/22. According to WASDE, U.S. corn and soybean exports are projected to decline slightly from MY 2020/21. WAOB estimates world soybean exports will rise slightly from MY 2020/21 to a record 172.9 million metric tons (mmt). Of total global soybean exports, the United States is expected to provide 32 percent, versus Brazil's 54 percent. World corn exports are expected to rise by 10.6 mmt to a record 197.47 mmt. The U.S. share of global corn exports is expected to decline to 31.5 percent. WAOB estimates China will increase its soybean imports by 3 mmt to a record 103 mmt; hold corn imports steady at 26.0 mmt; and lower its wheat imports by .5 mmt. If realized, WAOB's projected declines in U.S. exports in MY 2021/22 could slightly reduce the demand for domestic agricultural transportation and ocean vessels from MY 2020/21 levels.

DOT's Maritime Administration Announces $19.6 Million in Grant Awards

The Department of Transportation's (DOT) Maritime Administration recently announced the award of $19.6 million in grants through its Small Shipyard Grant Program. To help purchase equipment and train employees, the grants were awarded to 31 small shipyards in 15 States. A full list of recipients can be found here. The grant program aims to help its recipients build better infrastructure to increase productivity, move more ships, expand local employment opportunities, and compete in the global marketplace.

Pacific Northwest Drives Increase in Grain Inspections

For the week ending May 13, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions totaled 2.9 mmt. Total grain inspections were up 13 percent from the previous week, up 37 percent from last year, and up 19 percent from the 3-year average. Inspections increased for each of the three major grains, with wheat up 17 percent, corn up 10 percent, and soybeans up 27 percent from the previous week. The increase in inspections was driven by a 41-percent jump in Pacific Northwest (PNW) grain inspections. Mississippi Gulf inspections increased 1 percent for the same period. Compared to last year, year-to-date total grain inspections are up 39 percent.

Snapshots by Sector

Export Sales

For the week ending May 6, **unshipped balances** of wheat, corn, and soybeans totaled 30.0 mmt. This was 7-percent lower than last week, but 33 percent higher than the same time last year. Net **corn export sales** were −0.113 mmt, down significantly from the past week. Net **soybean export sales** were 0.094 mmt, down 43 percent from the previous week. Net weekly **wheat export sales** were 0.030 mmt, down significantly from the previous week.

Rail

U.S. Class I railroads originated 25,211 **grain carloads** during the week ending May 8. This was a 10-percent decrease from the previous week, 17 percent more than last year, and 7 percent more than the 3-year average.

Average May shuttle **secondary railcar** bids/offers (per car) were $121 below tariff for the week ending May 13. This was $25 less than last week and $23 more than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending May 15, **barge grain movements** totaled 870,175 tons. This was 13 percent less than the previous week and 10 percent more than the same period last year.

For the week ending May 15, 535 grain barges **moved down river**—98 barges fewer than the previous week. There were 804 grain barges **unloaded in New Orleans**, 5 percent more than the previous week.

Ocean

For the week ending May 13, 34 **oceangoing grain vessels** were loaded in the Gulf—17 percent more than the same period last year. Within the next 10 days (starting May 14), 55 vessels were expected to be loaded—15 percent more than the same period last year.

As of May 13, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $67.00. This was 3 percent more than the previous week. The rate from PNW to Japan was $39.50 per mt, 4 percent more than the previous week.

Fuel

For the week ending May 17, the U.S. average **diesel fuel price** increased 6.3 cents from the previous week to $3.249 per gallon, 86.3 cents above the same week last year.

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Feature Article/Calendar

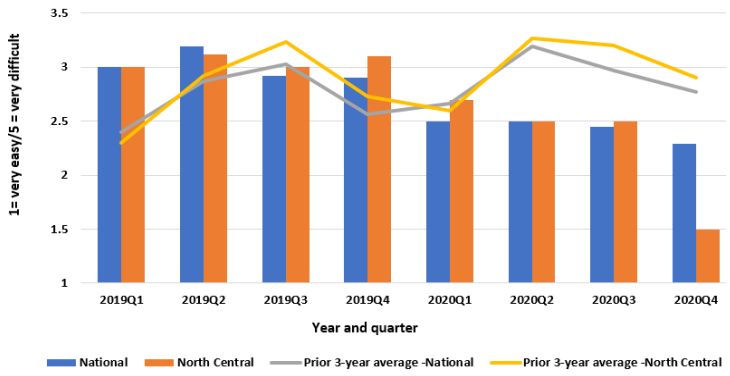
Annual Review of Grain Trucking Availability, Demand, and Rates

A vital link in the grain transportation system, trucks ship grain from producers to multiple destinations for a range of industries. Whether for an entire or partial route (with transfers to or from other modes), trucks deliver grain from producers to grain elevators, ethanol plants, processors, and feedlots. This article provides an overview of changes in truck availability, use, and short-haul rates in the grain sector between 2019 and 2020. The research was based on data from USDA/Agricultural Marketing Service's quarterly *Grain Truck and Ocean Rate Advisory* (*GTOR*), and the sample comprised representative grain movements in the North Central region, where much U.S. bulk grain originates.[1] Results revealed the COVID-19 pandemic did not cause major disruptions to that region's grain trucking.

Truck Availability

Using a 1 to 5 scale (1 = very easy and 5 = very difficult), the grain truck availability index represents the ease of finding and booking trucking services to meet demand for shipping grain (fig. 1). Starting in 2020, the grain truck availability index showed increasing availability (i.e., the index dropped) both for the North Central region and the Nation as a whole. The index also shows higher availability (lower index) for most quarters compared to the prior 3-year average.

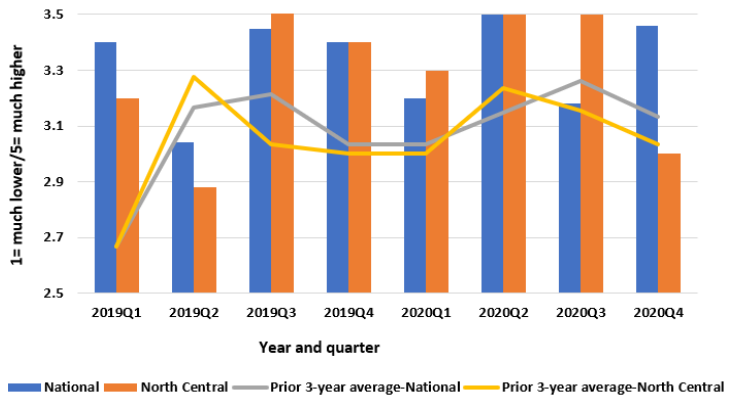
Figure 1: U.S. and North Central grain truck availability index, 2019-2020



Source: USDA, Agricultural Marketing Service

This unusually high availability in 2020 could be due to lower-than-usual transportation demand in other sectors, including fuel and ethanol in the early months of the pandemic. Soft demand in these other sectors may have diverted some trucks and truck drivers to grain transportation. Further enhancing grain truck availability, for most of 2020, the Department of Transportation's Federal Motor Carrier Safety Administration offered regulatory relief to increase truck drivers' availability to haul essential supplies (including feed grains).[2]

Figure 2: U.S. and North Central grain truck use index, 2019-2020



Source: USDA, Agricultural Marketing Service

Truck Use

Using another 1 to 5 scale (1 = much lower and 5 = much higher), the grain truck use index reflects the demand for trucks from grain shippers (fig. 2).[3] Seasonal fluctuations in grain truck use (captured by the index) mirror typical patterns of seasonal demand. Overall, the North Central region's seasonal variations in 2019 paralleled those of the country as a whole. The

[1] The North Central region includes Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Illinois, Indiana, Michigan, Missouri, Ohio, Kentucky, Tennessee, and Wisconsin. The GTOR's metrics on truck use, availability, and rates provide key indicators of supply and demand in the trucking market. The GTOR data contain elevator-level information on truck rates, for short hauls (25 miles), and longer hauls (100 and 200 miles)), current truck availability, and current/future truck use.

[2] https://www.fmcsa.dot.gov/emergency/expansion-and-extension-modified-emergency-declaration-no-2020-002-under-49-cfr-ss-0

[3] Current truck use indices are based on comparison to the same quarter of the previous year.

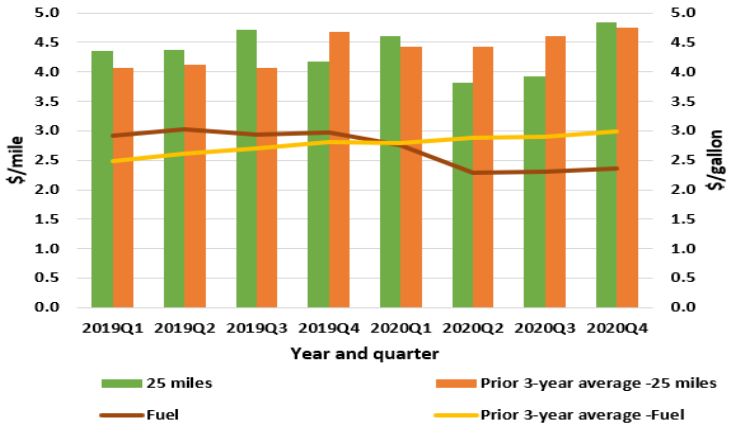
decline in truck use from first to second quarter 2019 reflected declining grain exports (particularly corn)—a lagged effect of the U.S.-China trade dispute begun in 2018. U.S corn exports were further weakened by strong competition from South America.

In the third quarter, North Central regional truck use rose with high demand at the start of the harvest season before dropping in the fourth quarter, echoing historical patterns. From first quarter 2020 to second quarter 2020, both U.S. and North Central truck use increased in response to rising export grain demand after Phase 1 of the U.S.-China trade agreement took effect. North Central truck use remained high until the end of harvest in the third quarter and exceeded the prior 3-year average. On the other hand, from second to third quarter 2020, national truck use dropped. The decrease reflected an overall decline in transportation demand due to widely adopted disease-prevention measures in the pandemic's early months. However, demand recovered in the last quarter, as the economy adapted to the "new normal."

Short-Haul Truck Rates and Fuel Price

Truck rates are a key component of agricultural transportation costs, affecting the viability of many trucking companies and profit margins for the grain producers. Besides fundamental supply and demand conditions, myriad other factors determine rates for grain hopper trucks, including basis, export market perspectives, fuel price, inventory, storage costs, back haul availability, and historical rates.[4] Because of the complexity involved in rate determination, contract rates may not necessarily reflect changes in the spot market and the fuel price when the contracts are fulfilled.

Figure 3: North Central short-haul truck rate and fuel price, 2019-2020



Source: USDA, Agricultural Marketing Service

For the first three quarters of 2019, North Central rates exceed the prior 3-year average—possibly because of combined higher export demand and longer operational time.[5] Compared to the same quarter in 2019, third quarter 2020 showed a 17-percent decline in rates. The sharp drop was mostly due to rising truck supply because of pandemic-driven declines in demand in other sectors (fig.3).

From first to second quarter 2020, fuel price dropped 17 percent (fig. 3), which partially explains the simultaneous drop in short-haul rates. A sharp decline in fuel demand in early 2020 caused inventories of petroleum products to reach near record-high levels, pushing prices to unexpected lows. During this time, the drop in fuel price helped lower short-haul truck rates and agricultural production costs, saving producers 8 cents/bushel/mile to ship corn, wheat, and soybeans.

Conclusions

Based on the GTOR data from 2019 to 2020, the U.S. grain trucking sector, specifically the North Central region, did not experience major pandemic-driven impacts. Data show the changes in truck availability and use were relatively stable, and lower truck rates may have benefited the agricultural producers.

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[4] Truck capacity is booked either by spot market or contract rate. The spot rate is the market rate, while the contract rate is a forward contract and offers the advantage of knowing the future freight price.

[5] Trucking companies typically charge a minimum daily rate to protect against wait time for equipment loading/unloading.

Grain Transportation Indicators

Table 1

Grain transport cost indicators[1]

	Truck	Rail		Barge	Ocean	
For the week ending		Non-Shuttle	Shuttle		Gulf	Pacific
05/19/21	218	297	218	208	300	280
05/12/21	214	297	219	216	291	270

[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)

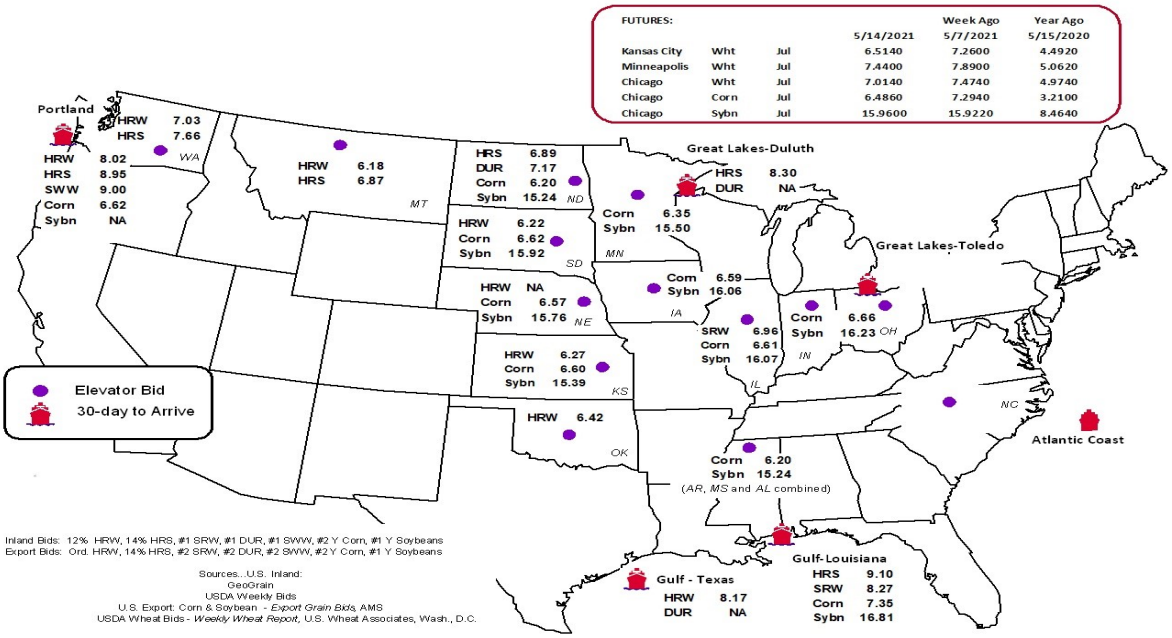
Commodity	Origin–destination	5/14/2021	5/7/2021
Corn	IL–Gulf	-0.74	-0.83
Corn	NE–Gulf	-0.78	-0.90
Soybean	IA–Gulf	-0.75	-0.73
HRW	KS–Gulf	-1.90	-1.96
HRS	ND–Portland	-2.06	-1.83

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]
5/12/2021[p]	653	1,116	6,452	107	8,328	5/8/2021	3,401
5/05/2021[r]	1,184	1,268	6,864	198	9,514	5/1/2021	2,769
2021 YTD[r]	30,636	31,453	128,658	9,686	200,433	2021 YTD	49,868
2020 YTD[r]	8,066	14,182	87,502	3,898	113,648	2020 YTD	44,445
2021 YTD as % of 2020 YTD	380	222	147	248	176	% change YTD	112
Last 4 weeks as % of 2020[2]	146	95	118	96	116	Last 4wks. % 2020	132
Last 4 weeks as % of 4-year avg.[2]	181	95	119	49	115	Last 4wks. % 4 yr.	114
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

[1]Data 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.

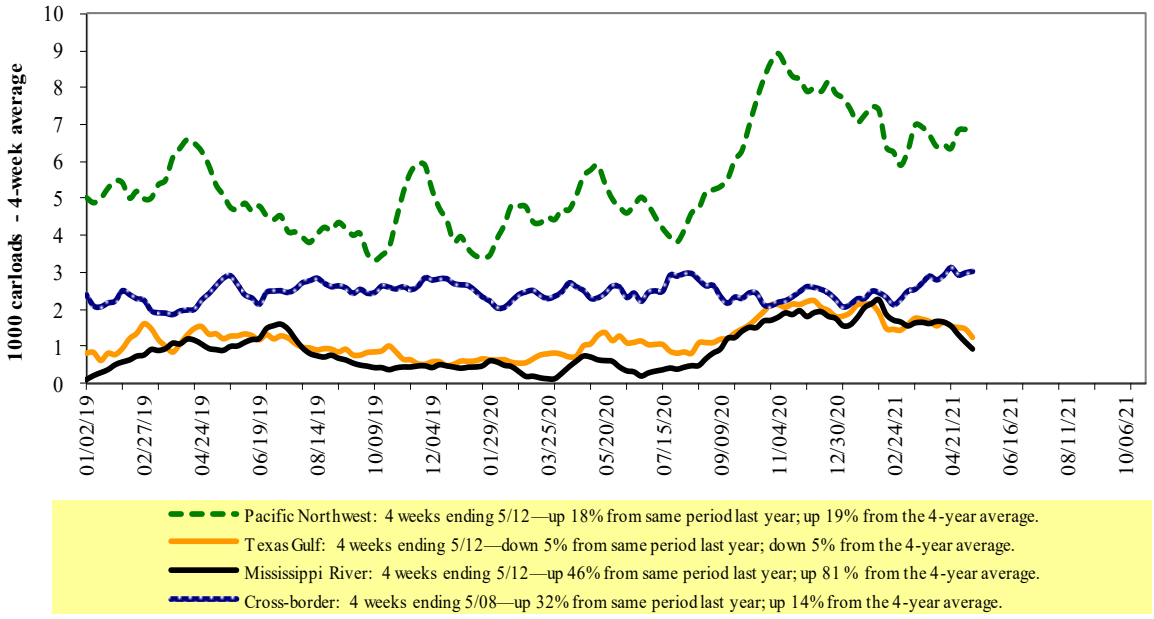
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available; wks. = weeks; avg. = average.

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.

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	
5/8/2021	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,674	2,935	13,018	707	6,877	25,211	5,046	5,717
This week last year	1,233	2,472	10,780	1,209	5,945	21,639	4,188	5,420
2021 YTD	36,074	46,695	237,507	18,867	119,352	458,495	89,238	98,957
2020 YTD	32,448	44,105	202,361	20,073	91,590	390,577	72,647	80,479
2021 YTD as % of 2020 YTD	111	106	117	94	130	117	123	123
Last 4 weeks as % of 2020*	109	110	125	115	123	121	111	114
Last 4 weeks as % of 3-yr. avg.**	96	94	112	115	127	112	109	120
Total 2020	91,659	130,768	613,630	57,782	296,701	1,190,540	238,894	261,778

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

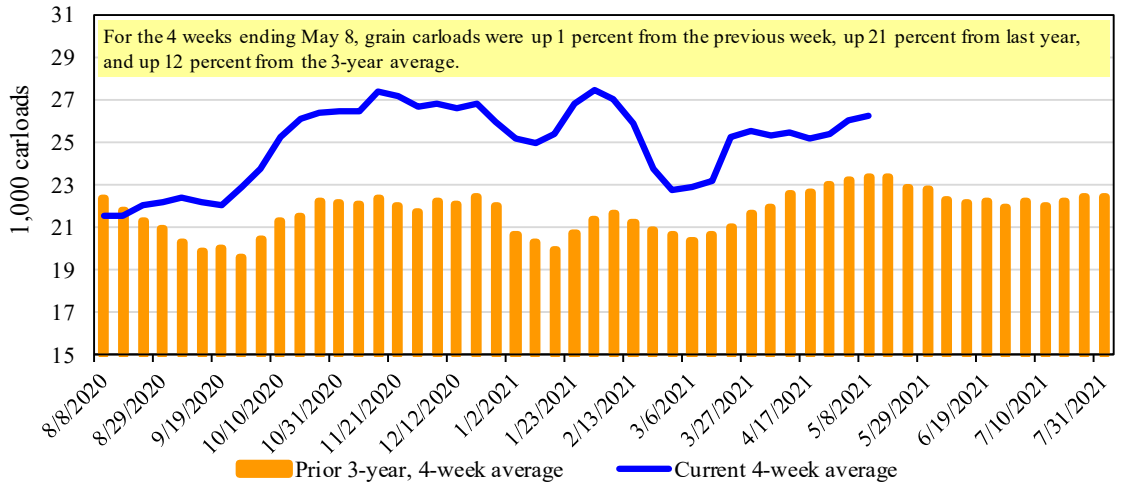
**The past 4 weeks as a percent of the same period from the prior 3-year average. YTD = year-to-date; avg. = average; yr. = year.

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

For the week ending:		Delivery period							
5/13/2021		May-21	May-20	Jun-21	Jun-20	Jul-21	Jul-20	Aug-21	Aug-20
BNSF[3]	COT grain units	no offer	no bids	no bids	0	no bids	no bids	0	0
	COT grain single-car	no offer	0	0	0	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

[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.

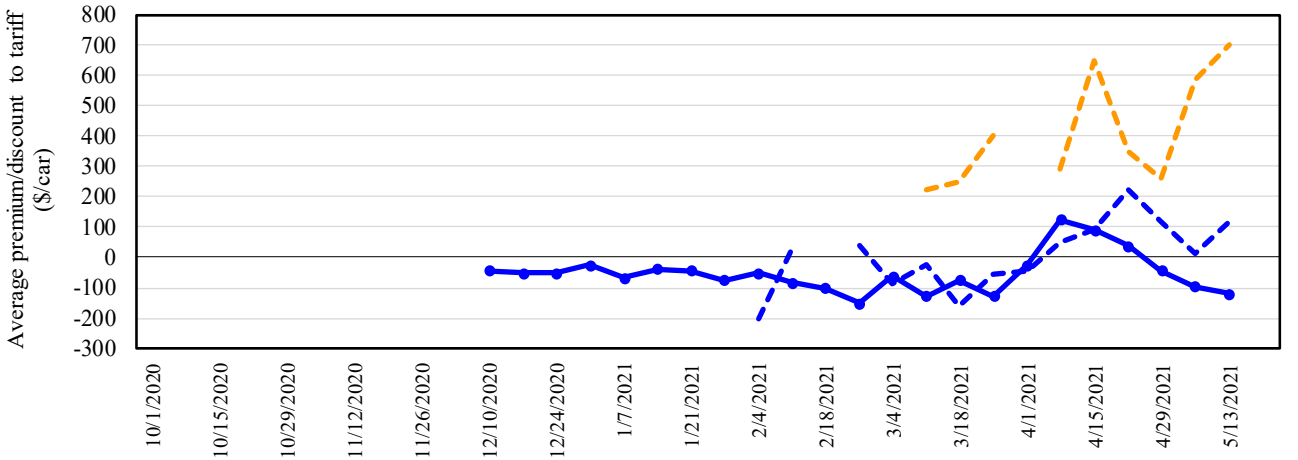
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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 May 2021, secondary market

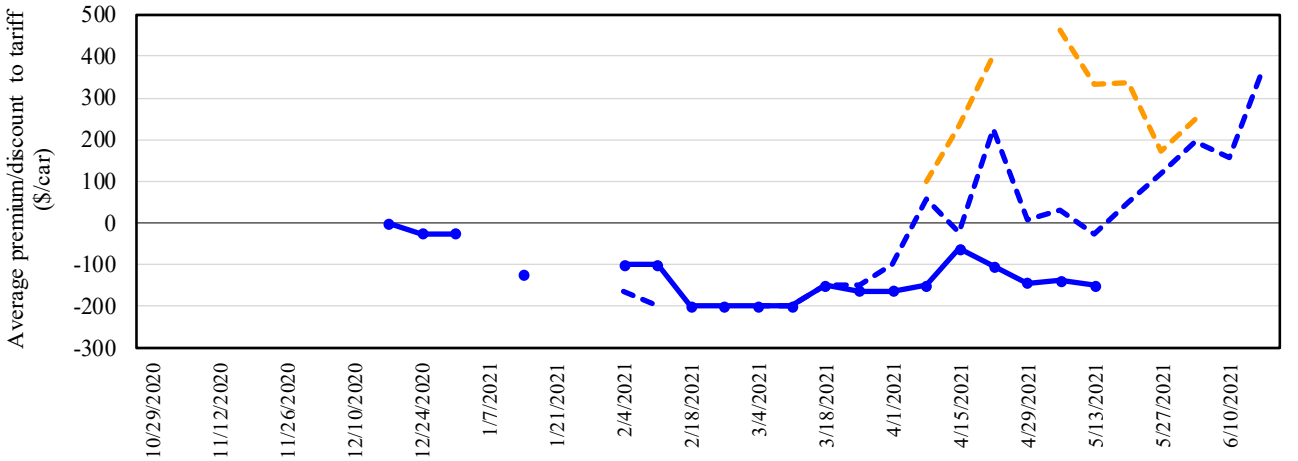


5/13/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	-$8	-$233

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers fell $25 this week and are $246 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 June 2021, secondary market



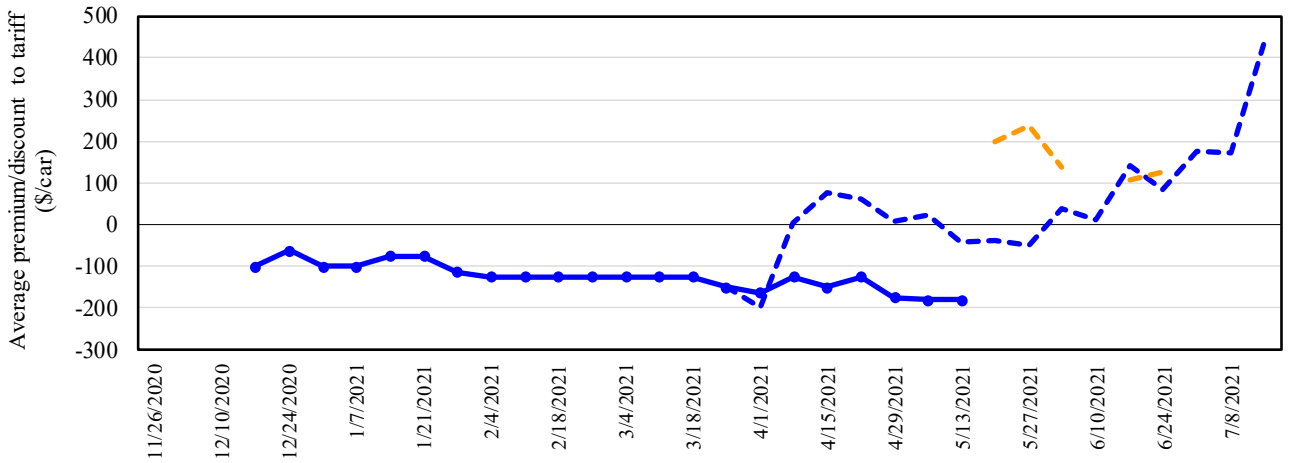
5/13/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	-$175	-$125

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers fell $13 this week and are $150 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 July 2021, secondary market



5/13/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	-$213	-$150

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers are unchanged this week and are $119 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.

Table 6

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

	For the week ending: 5/13/2021	Delivery period					
		May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-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 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**	**(8)**	**(175)**	**(213)**	**(244)**	**263**	**1183**
	Change from last week	59	0	1	6	(26)	66
	Change from same week 2020	142	(19)	n/a	n/a	n/a	858
	UP-Pool	**(233)**	**(125)**	**(150)**	**(175)**	**(150)**	**925**
	Change from last week	(108)	(25)	0	(25)	0	275
	Change from same week 2020	(96)	(13)	(25)	n/a	n/a	850

[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]

May 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	$111	$40.66	$1.11	1
	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	$196	$46.88	$1.28	2
	Sioux Falls, SD	Galveston-Houston, TX	$6,851	$0	$68.03	$1.85	-2
	Colby, KS	Galveston-Houston, TX	$4,801	$215	$49.81	$1.36	2
	Amarillo, TX	Los Angeles, CA	$5,121	$299	$53.82	$1.46	2
Corn	Champaign-Urbana, IL	New Orleans, LA	$3,900	$221	$40.93	$1.04	2
	Toledo, OH	Raleigh, NC	$7,833	$0	$77.79	$1.98	15
	Des Moines, IA	Davenport, IA	$2,455	$47	$24.84	$0.63	2
	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	$138	$40.10	$1.02	4
	Des Moines, IA	Los Angeles, CA	$5,780	$401	$61.38	$1.56	4
Soybeans	Minneapolis, MN	New Orleans, LA	$5,246	$225	$54.33	$1.48	46
	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	$221	$48.32	$1.32	2
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	$352	$63.20	$1.72	2
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	$221	$40.13	$1.02	2
	Lincoln, NE	Galveston-Houston, TX	$3,880	$0	$38.53	$0.98	0
	Des Moines, IA	Amarillo, TX	$4,320	$173	$44.62	$1.13	4
	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	$255	$50.95	$1.39	2
	Toledo, OH	Huntsville, AL	$4,945	$0	$49.11	$1.34	3
	Grand Island, NE	Portland, OR	$5,260	$360	$55.81	$1.52	3

[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: May 2021							
Commodity	Origin state	Destination region	Tariff rate per car[1]	Fuel surcharge per car[2]	Tariff rate plus fuel surcharge per: metric ton[3]	bushel[3]	Percent change[4] Y/Y
Wheat	MT	Chihuahua, CI	$7,384	$0	$75.45	$2.05	-2
	OK	Cuautitlan, EM	$6,713	$153	$70.15	$1.91	0
	KS	Guadalajara, JA	$7,471	$663	$83.11	$2.26	3
	TX	Salinas Victoria, NL	$4,347	$93	$45.37	$1.23	1
Corn	IA	Guadalajara, JA	$8,902	$571	$96.79	$2.46	3
	SD	Celaya, GJ	$8,140	$0	$83.17	$2.11	0
	NE	Queretaro, QA	$8,300	$317	$88.05	$2.23	2
	SD	Salinas Victoria, NL	$6,905	$0	$70.55	$1.79	0
	MO	Tlalnepantla, EM	$7,665	$309	$81.48	$2.07	2
	SD	Torreon, CU	$7,690	$0	$78.57	$1.99	0
Soybeans	MO	Bojay (Tula), HG	$8,547	$536	$92.80	$2.52	3
	NE	Guadalajara, JA	$9,157	$561	$99.28	$2.70	2
	IA	El Castillo, JA	$9,410	$0	$96.15	$2.61	-1
	KS	Torreon, CU	$8,014	$389	$85.86	$2.33	3
Sorghum	NE	Celaya, GJ	$7,772	$507	$84.59	$2.15	3
	KS	Queretaro, QA	$8,108	$191	$84.80	$2.15	1
	NE	Salinas Victoria, NL	$6,713	$154	$70.16	$1.78	1
	NE	Torreon, CU	$7,092	$357	$76.11	$1.93	2

[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.

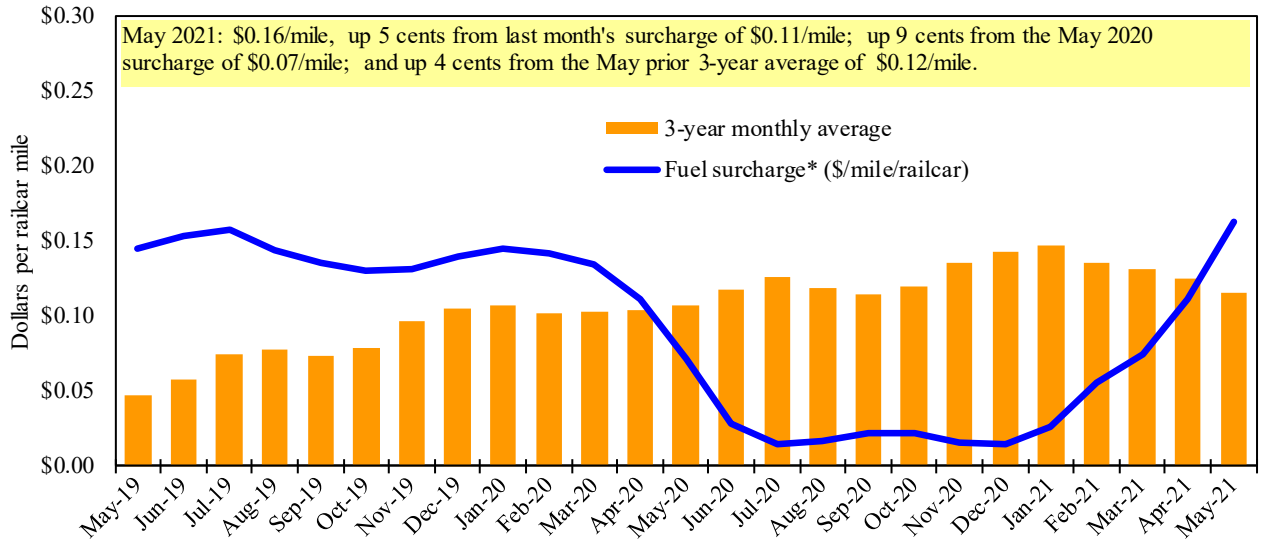
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

[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.

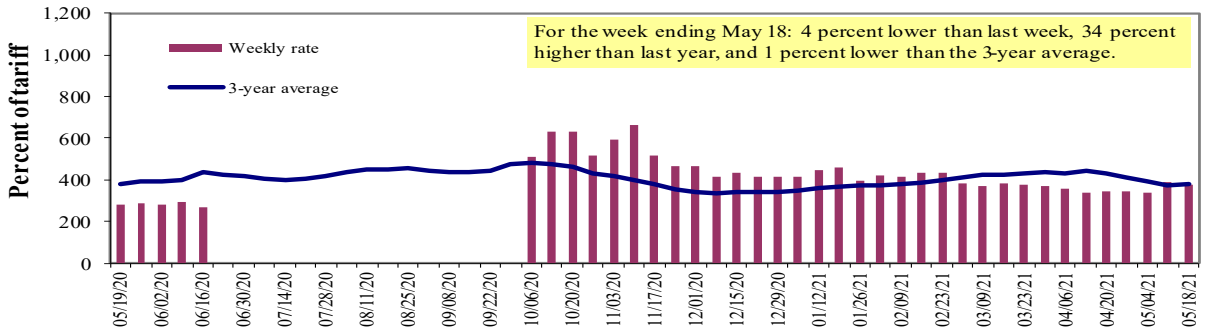
* Beginning January 2009, the Canadian Pacific fuel surcharge is computed by a monthly average of the bi-weekly fuel surcharge.

**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

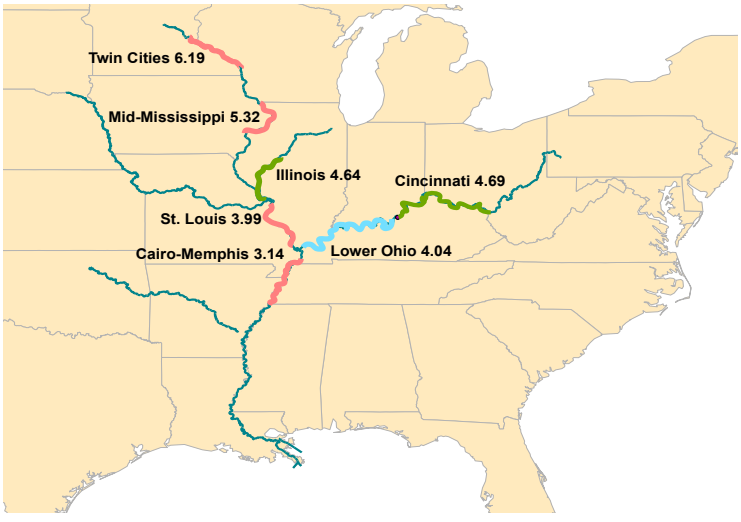
		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate[1]	5/18/2021	450	383	374	279	271	271	249
	5/11/2021	457	394	388	267	261	261	234
$/ton	5/18/2021	27.86	20.38	17.35	11.13	12.71	10.95	7.82
	5/11/2021	28.29	20.96	18.00	10.65	12.24	10.54	7.35
Current week % change from the same week:								
	Last year	29	34	34	40	50	50	37
	3-year avg. [2]	7	3	-1	4	-5	-5	-1
Rate[1]	June	420	355	345	254	258	258	238
	August	426	355	349	278	308	308	285

[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

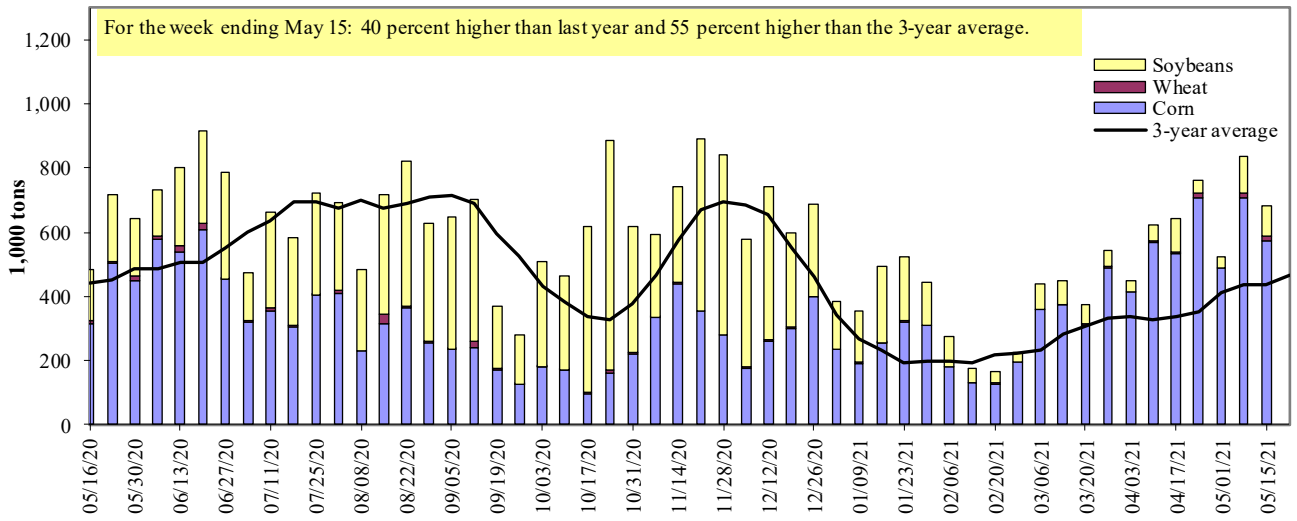
Select applicable index from market quotes are included in tables on this page. The 1976 benchmark rates per ton are provided in map.



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 05/15/2021	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	176	11	25	0	213
Winfield, MO (L25)	360	11	48	3	422
Alton, IL (L26)	591	17	91	3	702
Granite City, IL (L27)	572	17	92	3	684
Illinois River (La Grange)	151	6	37	0	194
Ohio River (Olmsted)	118	13	16	0	146
Arkansas River (L1)	0	23	17	0	40
Weekly total - 2021	689	52	125	3	870
Weekly total - 2020	511	33	238	11	793
2021 YTD[1]	11,120	450	3,606	142	15,319
2020 YTD[1]	5,779	591	4,138	41	10,548
2021 as % of 2020 YTD	192	76	87	348	145
Last 4 weeks as % of 2020[2]	168	97	40	95	119
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.

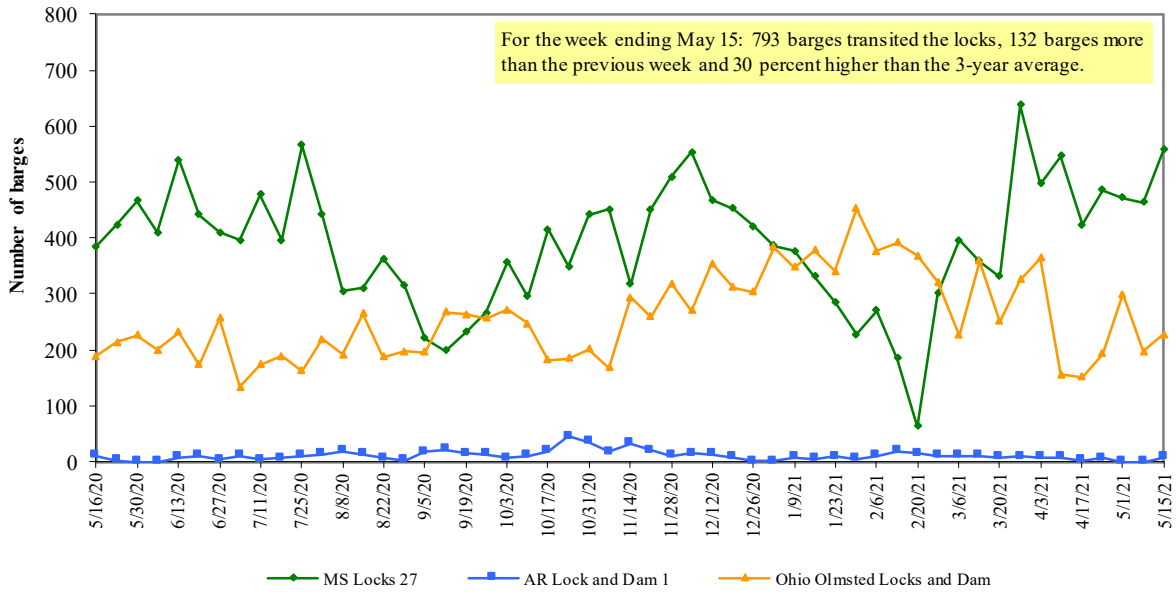
[2] As a percent of same period in 2020.

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

Source: U.S. Army Corps of Engineers.

Figure 11

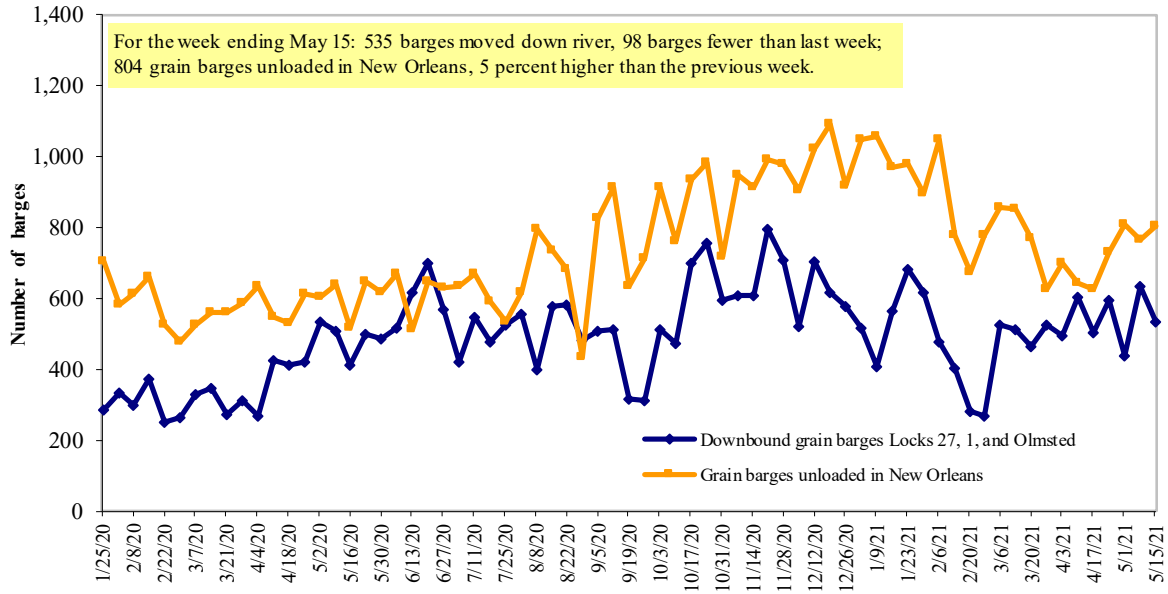
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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.

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 5/17/2021 (U.S. $/gallon)

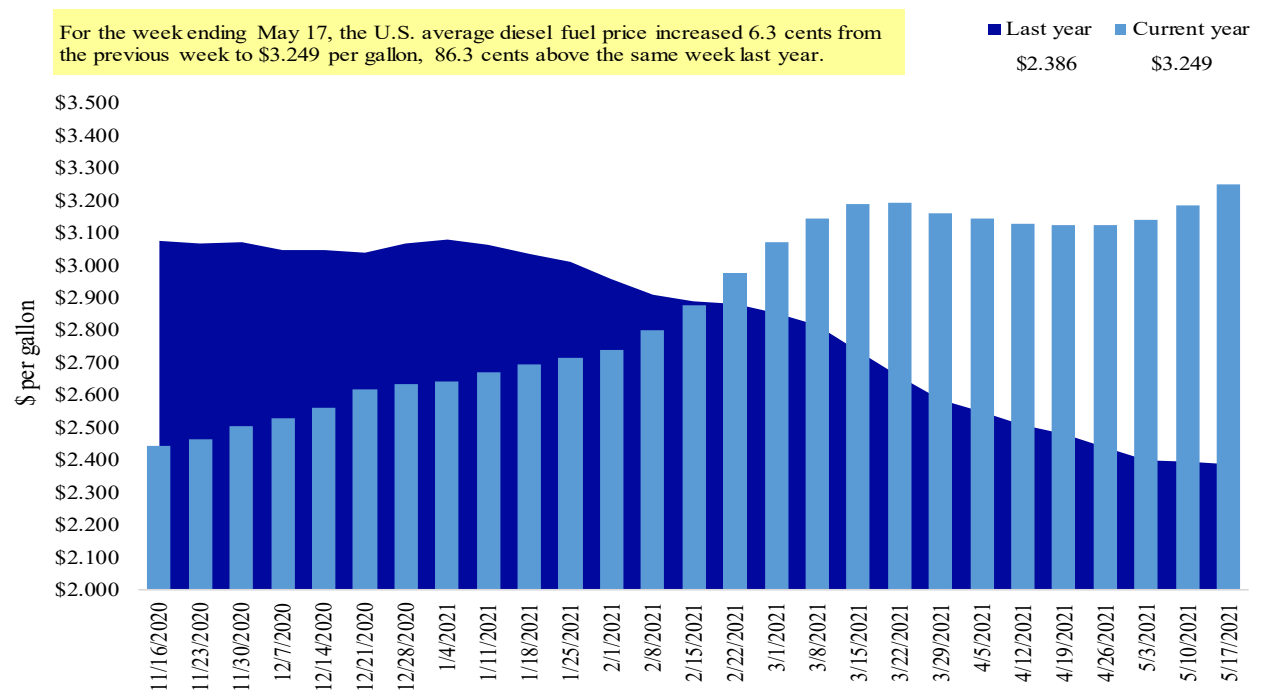
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.228	0.068	0.737
	New England	3.152	0.037	0.532
	Central Atlantic	3.395	0.059	0.728
	Lower Atlantic	3.130	0.079	0.785
II	Midwest	3.197	0.067	0.968
III	Gulf Coast	3.029	0.061	0.854
IV	Rocky Mountain	3.361	0.054	1.023
V	West Coast	3.735	0.043	0.848
	West Coast less California	3.383	0.070	0.840
	California	4.029	0.021	0.858
Total	United States	3.249	0.063	0.863

[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]									
5/6/2021	683	209	875	708	49	2,522	22,696	4,765	29,983
This week year ago	1,245	198	1,242	800	101	3,585	13,182	5,702	22,468
Cumulative exports-marketing year[2]									
2020/21 YTD	8,002	1,627	6,829	5,916	632	23,006	45,048	56,614	124,668
2019/20 YTD	8,641	2,243	6,551	4,476	883	22,795	25,345	34,390	82,531
YTD 2020/21 as % of 2019/20	93	73	104	132	72	101	178	165	151
Last 4 wks. as % of same period 2019/20*	76	119	85	125	64	92	192	87	150
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; 2020/21 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 05/06/2021	Total commitments[2]			% change	Exports[3]
	2021/22 next MY	2020/21 current MY	2019/20 last MY	current MY from last MY	3-yr. avg. 2017-19
			- 1,000 mt -		
Mexico	1,786	13,888	13,182	5	14,869
Japan	524	9,819	8,298	18	11,221
Columbia	0	3,670	3,754	(2)	4,830
Korea	0	3,270	1,975	66	4,011
China	1,360	22,910	1,253	1,729	909
Top 5 importers	**3,671**	**53,556**	**28,462**	**88**	**35,840**
Total U.S. corn export sales	**4,875**	**67,744**	**38,527**	**76**	**49,983**
% of projected exports	8%	96%	85%		
Change from prior week[2]	**2,084**	**(113)**	**1,073**		
Top 5 importers' share of U.S. corn export sales	75%	79%	74%		72%
USDA forecast May 2021	**62,341**	**70,611**	**45,242**	**56**	
Corn use for ethanol USDA forecast, May 2021	**132,080**	**126,365**	**123,368**	**2**	

[1] Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2019/20; 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 5/6/2021	Total commitments[2]			% change current MY from last MY	Exports[3] 3-yr. avg. 2017-19
	2021/22 next MY	2020/21 current MY	2019/20 last MY		
			1,000 mt -		- 1,000 mt -
China	3,062	35,704	13,815	158	19,106
Mexico	265	4,650	4,239	10	4,591
Egypt	0	2,670	2,862	(7)	2,980
Indonesia	0	2,015	1,745	15	2,360
Japan	74	2,062	2,157	(4)	2,288
Top 5 importers	**3,401**	**47,101**	**24,819**	**90**	**31,324**
Total U.S. soybean export sales	**6,926**	**61,379**	**40,092**	**53**	**49,352**
% of projected exports	12%	99%	87%		
change from prior week[2]	**103**	**94**	**539**		
Top 5 importers' share of U.S. soybean export sales	49%	77%	62%		**63%**
USDA forecast, May 2021	**56,540**	**62,125**	**45,831**	**136**	

[1]Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2019/20; 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 05/06/2021	Total Commitmer			% change current MY from last MY	Exports[3] 3-yr. avg. 2017-19
	2021/22 next MY	2020/21 current MY	2019/20 last MY		
			1,000 mt -		- 1,000 mt -
Mexico	491.3	3,642	3,820	(5)	3,213
Philippines	604.5	3,207	3,516	(9)	2,888
Japan	180.3	2,492	2,746	(9)	2,655
Nigeria	179	1,404	1,573	(11)	1,433
Korea	142	1,914	1,619	18	1,372
Indonesia	0	937	1,066	(12)	1,195
Taiwan	51	1,187	1,423	(17)	1,175
Thailand	0	810	876	(8)	727
Italy	0	616	924	(33)	622
Colombia	82.5	381	798	(52)	618
Top 10 importers	**1,731**	**16,589**	**18,362**	(10)	**15,897**
Total U.S. wheat export sale	**3,260**	**25,528**	**26,380**	(3)	**23,821**
% of projected exports	13%	97%	100%		
change from prior week[2]	**268**	**30**	**203**		
Top 10 importers' share of U.S. wheat export sales	53%	65%	70%		67%
USDA forecast, May 2021	**24,523**	**26,294**	**26,294**	0	

[1] Based on USDA, Foreign Agricultural Service(FAS) marketing year ranking reports for 2019/20; 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 05/13/21	Previous week*	Current week as % of previous	2021 YTD*	2020 YTD*	2021 YTD as % of 2020 YTD	Last 4-weeks as % of: Last year	Last 4-weeks as % of: Prior 3-yr. avg.	2020 total*
Pacific Northwest									
Wheat	416	321	130	6,378	5,947	107	134	127	15,966
Corn	647	433	150	8,084	3,240	250	175	144	9,969
Soybeans	11	10	106	3,669	2,733	134	6	9	14,028
Total	**1,074**	**764**	**141**	**18,131**	**11,920**	**152**	**136**	**126**	**39,963**
Mississippi Gulf									
Wheat	109	62	176	915	1,418	65	109	67	3,422
Corn	993	1,105	90	19,597	11,278	174	162	165	28,781
Soybeans	200	123	163	9,691	8,982	108	50	40	38,013
Total	**1,303**	**1,289**	**101**	**30,203**	**21,678**	**139**	**129**	**118**	**70,215**
Texas Gulf									
Wheat	96	111	86	1,367	1,406	97	95	76	4,248
Corn	7	0	n/a	223	308	72	38	48	723
Soybeans	0	0	n/a	656	7	n/a	0	0	2,098
Total	**103**	**111**	**92**	**2,246**	**1,721**	**130**	**78**	**70**	**7,068**
Interior									
Wheat	40	74	55	1,006	894	113	139	155	2,263
Corn	211	149	142	3,485	3,062	114	111	108	8,683
Soybeans	107	101	105	2,594	2,536	102	93	84	7,274
Total	**359**	**324**	**111**	**7,086**	**6,491**	**109**	**108**	**104**	**18,220**
Great Lakes									
Wheat	32	25	126	117	183	64	70	63	891
Corn	0	0	n/a	25	0	n/a	n/a	0	111
Soybeans	1	11	8	12	17	71	71	131	1,111
Total	**33**	**37**	**90**	**154**	**200**	**77**	**70**	**56**	**2,113**
Atlantic									
Wheat	0	0	n/a	72	1	n/a	n/a	n/a	65
Corn	0	0	n/a	14	8	174	86	40	33
Soybeans	6	11	54	993	363	274	86	38	1,870
Total	**6**	**11**	**54**	**1,079**	**372**	**290**	**86**	**39**	**1,968**
U.S. total from ports*									
Wheat	693	593	117	9,855	9,849	100	121	105	26,854
Corn	1,859	1,686	110	31,428	17,896	176	155	147	48,301
Soybeans	325	257	127	17,615	14,637	120	52	46	64,394
Total	**2,877**	**2,536**	**113**	**58,898**	**42,382**	**139**	**124**	**114**	**139,548**

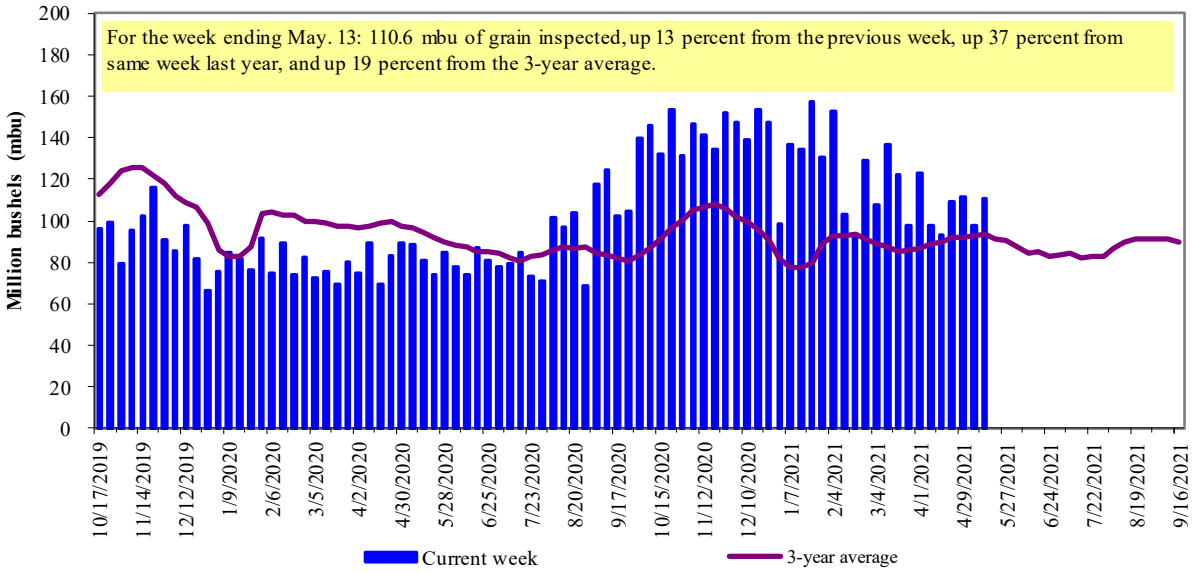
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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)

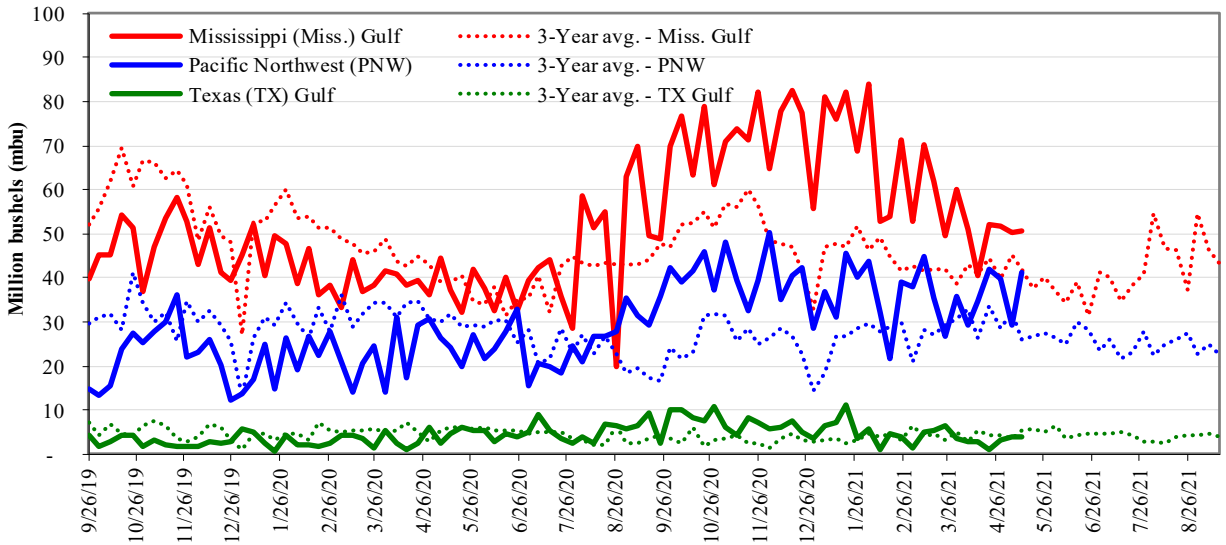


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

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



Week ending 05/13/21 inspections (mbu):	
MS Gulf:	50.5
PNW:	41.1
TX Gulf:	3.8

Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last wk:	unchanged	down 7	unchanged	up 41
Last Year (same wk):	up 35	down 19	up 29	up 70
3-yr avg. (4-wk. mov. Avg):	up 18	down 12	up 15	up 37

Source: USDA, Federal Grain Inspection Service.

Table 17

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

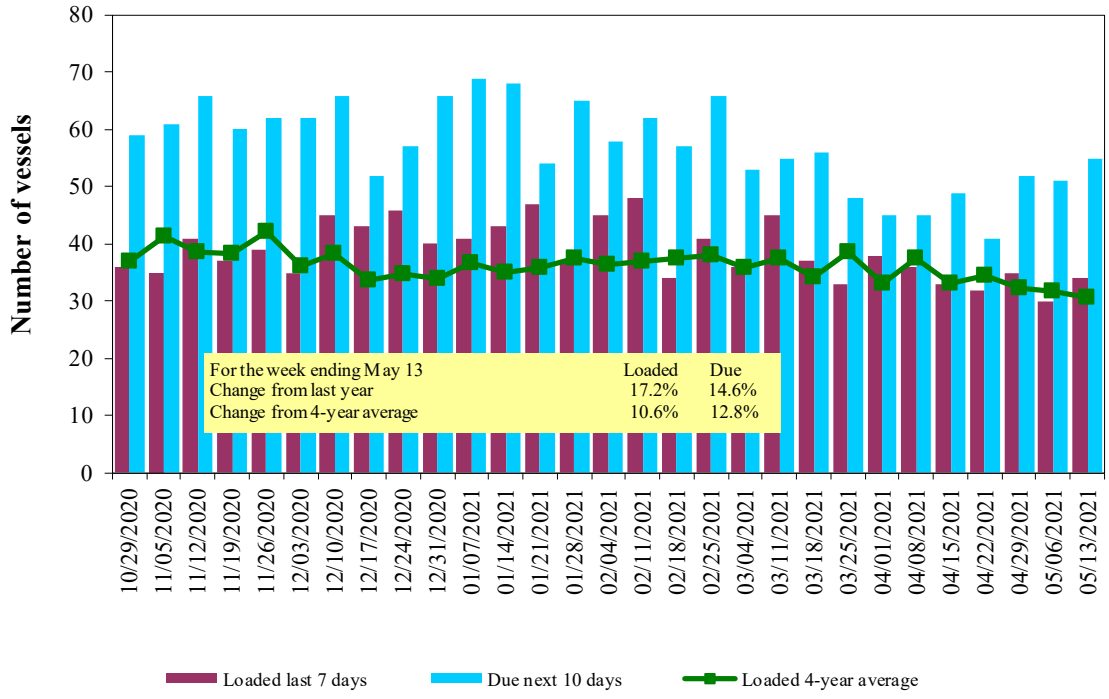
	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
5/13/2021	21	34	55	14
5/6/2021	24	30	51	18
2020 range	(22…60)	(23...46)	(34...68)	(7…24)
2020 average	37	33	49	15

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

Source: USDA, Agricultural Marketing Service.

Figure 16

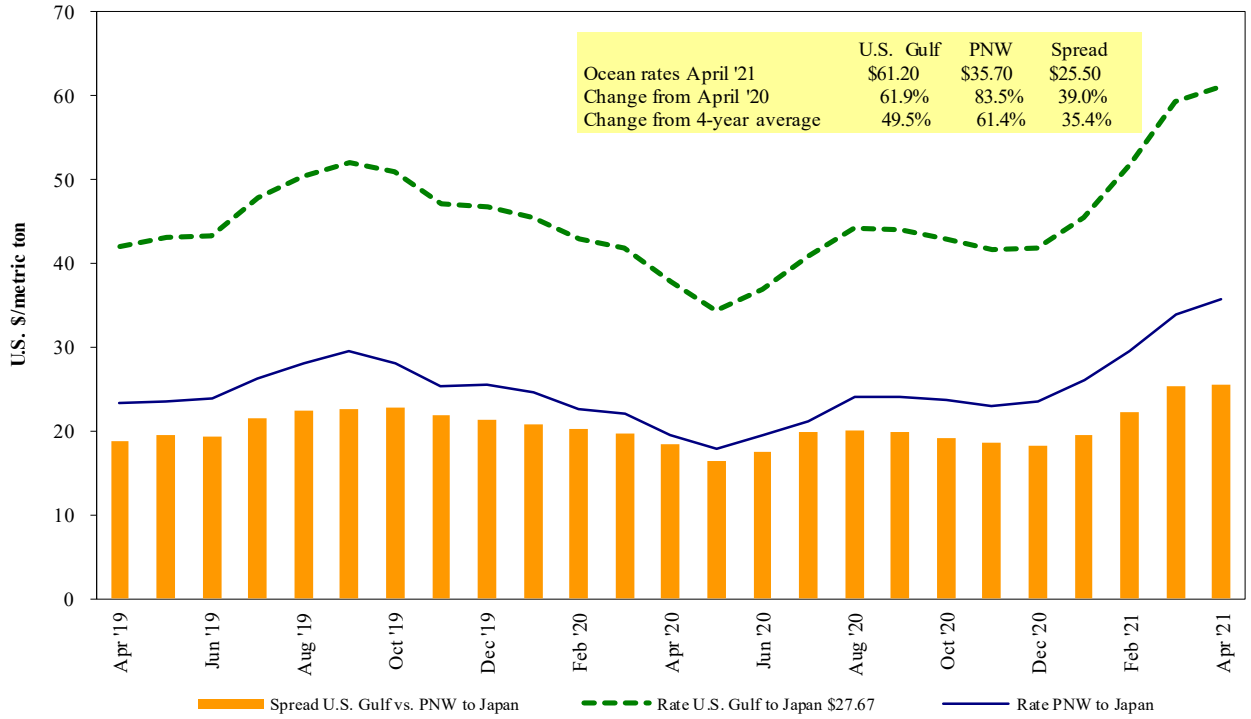
U.S. Gulf[1] vessel loading activity



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

Figure 17

Grain vessel rates, U.S. to Japan



Note: PNW = Pacific Northwest

Source: O'Neil Commodity Consulting

Table 18

Ocean freight rates for selected shipments, week ending 05/15/2021

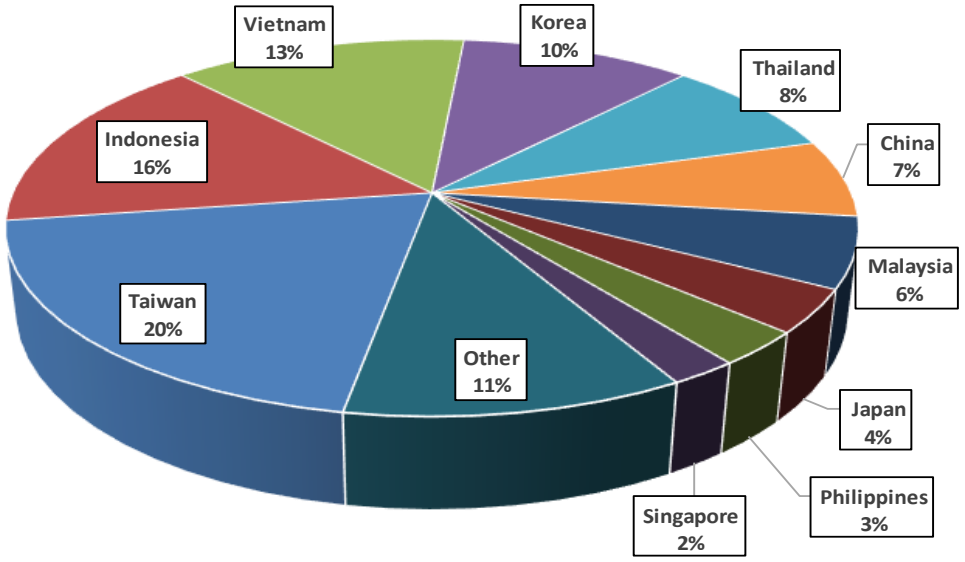
Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US$/metric ton)
U.S. Gulf	Japan	Heavy grain	Aug 21/Sep 9	50,000	60.90
U.S. Gulf	Japan	Heavy grain	Jul 1/15	50,000	64.10
U.S. Gulf	Japan	Grain	May 25/Jun 25	50,000	46.85 op 47.85
U.S. Gulf	Japan	Wheat	May 1/15	31,877	58.33
U.S. Gulf	Japan	Wheat	May 1/14	47,405	67.50
U.S. Gulf	Japan	Heavy grain	Apr 15/May 15	50,000	47.00
U.S. Gulf	Japan	Heavy grain	Apr 1/30	48,000	46.75
U.S. Gulf	China	Heavy grain	Apr 14/29	68,000	63.50
U.S. Gulf	South Korea	Heavy grain	Feb 20/28	51,000	51.50
U.S. Gulf	Sudan	Wheat	May 20/30	48,000	112.75*
U.S. Gulf	Pt Sudan	Sorghum	Feb 15/25	34,860	143.13*
U.S. Gulf	Vietnam	Corn	Feb 5/15	70,000	47.25
PNW	Japan	Wheat	Jun 5/15	50,600	49.30
PNW	Japan	Grain	Mar 5/14	28,000	48.10
PNW	Taiwan	Wheat	May 29/Jun 12	45,665	48.00
PNW	Taiwan	Corn	Feb 20/Mar 15	65,000	24.90
Brazil	China	Heavy grain	Mar 21/31	66,000	44.00
Brazil	China	Heavy grain	Mar 21/30	66,000	45.50
River Plate	S. Korea	Corn	May 1/31	68,000	52.60*
Ukraine	China	Corn	Feb 10/17	60,000	36.40 op 38.90

*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.

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.

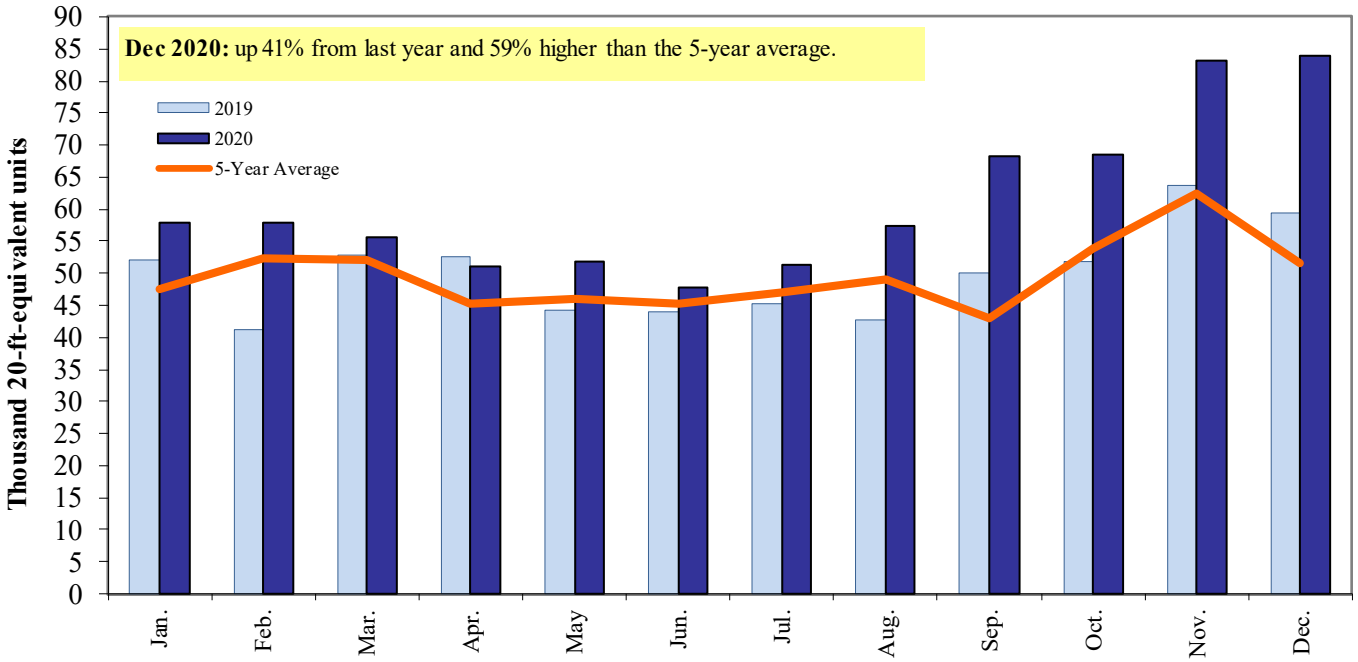
Figure 18
Top 10 destination markets for U.S. containerized grain exports, Jan-Dec 2020



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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