



# **Grain Transportation Report**

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

WEEKLY HIGHLIGHTS

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December 8, 2022

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The next release is December 15, 2022 **USDA Secretary Thanks Congress for Preventing Rail Crisis** 

In a <u>December 2 press release</u>, the USDA Secretary thanked Congress "for taking swift action to prevent a potentially crippling national rail shutdown." A bill adopting the Tentative Agreement between railroad workers and carriers was passed by Congress on December 1 and signed into law by the President on December 2. With the legislation's passage, USDA's Secretary noted, "U.S. farmers and ranchers, as well as American consumers, can breathe a sigh of relief that the trains will stay on track to deliver food, inputs, raw materials, and other essential items across the Nation." He also affirmed the Administration's ongoing commitment to making "progress on fostering economic growth, strengthening supply chains, and supporting workers who deserve protections in the workplace."

Diesel Prices Drop Below \$5 per Gallon for First Time in 9 Weeks

For the week ending December 5, the U.S. average diesel fuel price decreased 17.4 cents from the previous week to \$4.967 per gallon, 129.3 cents above the same week last year. This was the first time since October that the diesel price had fallen below \$5 per gallon. It was also the largest drop since July 25 when the diesel price dropped by 16.4 cents and—before that—October 27, 2008, when the diesel price declined by 19.4 cents. In the agriculture-producing Midwest, the diesel price dropped by 20.1 cents to \$4.907 per gallon. Last month, amid widespread fuel shortages, several Midwestern States temporarily waived hours-of-service (HOS) regulations for truck drivers hauling fuel.

EPA Proposes Renewable Fuel Standards for 2023-25

On December 1, the Environmental Protection Agency (EPA) proposed a rule to establish 2023, 2024, and 2025 required renewable fuel standards (RFS) for production volumes and percentages of total U.S. fuel production. The proposed rule would also strengthen and expand the RFS program. By 2025, EPA proposes requiring U.S. production of 22.68 billion gallons of renewable fuel, up from 20.63 billion gallons in 2022. The proposed rule would significantly accelerate the growth of and investment in low-carbon renewable fuels. By establishing 3 years of RFS volumes (2023-25), EPA intends the certainty of that knowledge to help stabilize supply chains. On January 10, 2023, EPA will hold a virtual public hearing on the proposed rule. An additional session may be held on January 11, 2023, if necessary, to accommodate all commenters. Register by January 3, 2023, by emailing <a href="mailto:RFS-Hearing@epa.gov">RFS-Hearing@epa.gov</a>.

Nebraska Extends HOS Waiver for Fuel

Amid ongoing fuel shortages, the Nebraska Acting Governor has extended, through December 31, 2022, an hours of service (HOS) waiver for drivers transporting gasoline or gasoline blends, diesel, fuel oil, ethanol, propane, and biodiesel. Last month, Nebraska, South Dakota, and Iowa all issued HOS waivers for transporting fuel. However, South Dakota and Iowa have allowed their waivers to expire.

**Snapshots by Sector** 

**Export Sales** 

For the week ending November 24, **unshipped balances** of wheat, corn, and soybeans for marketing year (MY) 2022/23 totaled 34.77 million metric tons (mmt), down 25 percent from the same time last year and down 4 percent from last week. Net **corn export sales** for MY 2022/23 were 0.603 mmt, down 67 percent from last week. Net **soybean export sales** were 0.694 mmt, unchanged from last week. Net weekly **wheat export sales** were 0.155 mmt, down 70 percent from last week.

Rail

U.S. Class I railroads originated 20,261 **grain carloads** during the week ending November 26. This was a 24-percent decrease from the previous week, 14 percent fewer than last year, and 14 percent fewer than the 3-year average.

Average December shuttle secondary railcar bids/offers (per car) were \$665 above tariff for the week ending December 1. This was \$220 more than last week and \$261 more than this week last year.

Barge

For the week ending December 3, barged grain movements totaled 808,168 tons. This was 8 percent higher than the previous week and 7 percent less than the same period last year.

For the week ending December 3, 521 grain barges **moved down river**—37 more barges than last week. There were 886 grain barges **unloaded** in the New Orleans region, 21 percent more than last week.

Ocean

For the week ending December 1, 26 occangoing grain vessels were loaded in the Gulf—24 percent fewer than the same period last year. Within the next 10 days (starting December 2), 34 vessels were expected to be loaded—35 percent fewer than the same period last year.

As of December 1, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$57.00. This was 2 percent less than November 17. The rate from the Pacific Northwest to Japan was \$32.25 per mt, 3 percent less than November 17.

### Feature Article/Calendar

#### Landed Costs of U.S. and Brazilian Soybeans Fell From Second to Third Quarter

The United States and Brazil are the world's two leading producers and exporters of soybeans. As such, they compete for the same overseas markets. For both the United States and Brazil, the competitiveness of soybean exports depends on low transportation and landed costs (i.e., transportation costs plus farm values) to the key destinations of China and Europe. This article compares quarterly and yearly changes in the costs of moving soybeans from the United States and Brazil to Shanghai, China (table 1) and to Hamburg, Germany (table 2).

Table 1-Quarterly costs of transporting soybeans from United States and Brazil to Shanghai, China

Table 1-Qi	iarterly cos	ts of trans	porting s	oybeans n	rom Unite	d States and	Brazii to	Snangnai.	Cnina	
	2021	2022	2022	Percent	change	2021	2022	2022	Percent	change
	3 <sup>rd</sup> qtr.	2 <sup>nd</sup> qtr.	3 <sup>rd</sup> qtr.	Yr. to yr.	Qtr. to qtr.	3 <sup>rd</sup> qtr.	2 <sup>nd</sup> qtr.	3 <sup>rd</sup> qtr.	Yr. to yr.	Qtr. to qtr.
					United State	s (via U.S. Gul	f)			
			ieapolis, M	N			Davenp	ort, IA		
		\$/mt					\$/mt			
Truck	13.18	23.40	19.07	44.69	-18.50	13.18	23.40	19.07	44.69	-18.50
Rail <sup>1</sup>	-	-	-	-	-	-	-	-	-	-
Barge	32.62	44.56	46.33	42.03	3.97	26.21	34.72	36.95	40.98	6.42
Ocean <sup>2</sup>	80.83	78.81	63.87	-20.98	-18.96	80.83	78.81	63.87	-20.98	-18.96
Total transportation	126.63	146.77	129.27	2.08	-11.92	120.22	136.93	119.89	-0.27	-12.44
Farm value <sup>3</sup>	483.79	589.12	531.56	9.87	-9.77	494.82	581.78	551.16	11.39	-5.26
Landed cost <sup>4</sup>	610.42	735.89	660.83	8.26	-10.20	615.04	718.71	671.05	9.11	-6.63
Transport % of landed cost <sup>5</sup>	20.74	19.94	19.56	-1.18	-0.38	19.55	19.05	17.87	-1.68	-1.19
					Via	a PNW				
			argo, ND				ioux Falls, S			
Truck	13.18	23.40	19.07	44.69	-18.50	13.18	23.40	19.07	44.69	-18.50
Rail <sup>1</sup>	57.76	64.77	68.96	19.39	6.47	58.76	66.48	71.06	20.93	6.89
Ocean	43.98	44.65	37.41	-14.94	-16.22	43.98	44.65	37.41	-14.94	-16.22
Total transportation	114.92	132.82	125.44	9.15	-5.56	115.92	134.53	127.54	10.02	-5.20
Farm value	462.97	574.43	521.76	12.70	-9.17	483.79	580.55	537.68	11.14	-7.38
Landed cost	577.89	707.25	647.20	11.99	-8.49	599.71	715.08	665.22	10.92	-6.97
Transport % of landed cost	19.89	18.78	19.38	-0.50	0.60	19.33	18.81	19.17	-0.16	0.36
		NI41-	MT <sup>6</sup> - San	47	В	razil	C4b	GO <sup>6</sup> - Para	7	
		\$/mt	MII - San	tos			\$/mt	GO - Para	ınagua	
Truck	59.59	102.44	99.71	67.33	-2.66	34.66	59.39	58.82	69.71	-0.96
Ocean <sup>8</sup>	64.00	65.75	48.70	-23.91	-25.93	66.00	67.75	49.00	-25.76	-27.68
Total transportation	123.59	168.19	148.41	20.08	-11.76	100.66	127.14	107.82	7.11	-15.20
Farm Value <sup>9</sup>	513.31	566.29	514.98	0.33	-9.06	495.90	565.92	513.50	3.55	-9.26
Landed Cost	636.90	734.48	663.39	4.16	-9.68	596.56	693.06	621.32	4.15	-10.35
Transport % of landed cost	19.40	22.90	22.37	2.97	-0.53	16.87	18.34	17.35	0.48	-0.99

<sup>&</sup>lt;sup>1</sup>Rail rates include fuel surcharges, but do not include the cost of purchasing empty rail cars in the secondary rail markets, which could exceed the rail tariff rate plus fuel surcharge shown in the table. Second quarter rates were revised from what were previously published.

Note: qtr. = quarter; yr. = year; mt = metric ton; "-" indicates data not required or applicable. Totals may not add up exactly because of rounding Source: Compiled by USDA, Agricultural Marketing Service.

**Quarter-to-quarter transportation costs.** From second quarter 2022 to third quarter 2022 (quarter to quarter), total transportation costs fell for exporting U.S. soybeans to China—both through the U.S. Gulf (Gulf routes) and Pacific Northwest (PNW routes) (table 1). Transportation costs also fell for shipping to Germany by the Gulf routes (table 2). Brazil's transportation costs followed the same downward trend as U.S. costs.

In the United States, transportation costs to China and Germany declined with falling truck and ocean freight rates. Rail rates (public tariff, plus the fuel surcharge) rose. In Brazil, transportation costs fell with lower truck and ocean freight rates. In the United States, barge rates increased primarily because of low water levels on the Lower Mississippi River (*Grain Transportation Report*, October 20, 2022).

<sup>&</sup>lt;sup>2</sup>Source for the U.S. Ocean freight rates: O'Neil Commodity Consulting.

<sup>&</sup>lt;sup>3</sup>Source for the U.S. farm values: USDA, National Agricultural Statistics Service.

<sup>&</sup>lt;sup>4</sup>Landed cost is transportation cost plus farm value.

<sup>&</sup>lt;sup>5</sup>For transportation as a percentage of landed costs, the year-to-year and quarter-to-quarter columns record percentage-point differences.

<sup>&</sup>lt;sup>6</sup>Producing regions: MT= Mato Grosso, GO = Goiás.

<sup>&</sup>lt;sup>7</sup>Export ports.

<sup>&</sup>lt;sup>8</sup>Source for Brazil's ocean freight rates: University of São Paulo, Brazil, and USDA, Agricultural Marketing Service.

<sup>&</sup>lt;sup>9</sup>Source for Brazil's farm values: Companhia Nacional de Abastecimento.

Ocean freight rates fell in response to weak trade of bulk commodities. Truck rates fell as the average diesel price fell from its peak of \$5.49 per gallon in the second quarter to \$5.15 per gallon in the third quarter.

**Year-to-year transportation costs.** From third quarter 2021 to third quarter 2022 (year to year), transportation costs increased in the United States and Brazil, except for IA-Gulf-route shipments to China, which had stable transportation costs. In the United States, higher truck, barge, and rail rates pushed up total transportation costs for shipments to China. In Brazil, higher truck rates pushed up total transportation costs for shipments destined to Europe.

**Quarter-to-quarter landed costs.** Quarter to quarter, landed costs decreased in the United States and Brazil. For both countries, falling transportation costs and farm values precipitated declining landed costs. For U.S. shipments to China, transportation costs accounted for 18-20 percent of third-quarter U.S. landed costs (table 1). For shipments to Germany, that share was 14-16 percent (table 2). For Brazilian shipments to China, transportation costs were 17-22 percent of total third-quarter Brazilian landed costs (table 1). For shipments to Germany, that share was 16-22 percent (table 2).

Table 2-Quarterly costs of transporting soybeans from United States and Brazil to Hamburg, Germany

2021 2022 2022 Percent change 2021 2022 2022 Percent change 3<sup>rd</sup> qtr. 3<sup>rd</sup> qtr. 2<sup>nd</sup> qtr. 3<sup>rd</sup> qtr. Qtr. to qtr. 3<sup>rd</sup> qtr. 2<sup>nd</sup> qtr. Yr. to yr. Qtr. to qtr. United States (via U.S. Gulf) Minneapolis, MN Davenport, IA --\$/mt---\$/mt-19.07 23.40 19.07 Truck 13.18 23.40 44.69 -18.5013.18 44.69 -18.50Rail1 3.97 6.42 44.56 42.03 40.98 32.62 46.33 26.21 34.72 36.95 Barge Ocean<sup>2</sup> 33.35 13.72 -3.81 33.35 32.08 13.72 28.21 32.08 28.21 -3.81Total transportation 74.01 101.31 97.48 31.71 -3.78 67.60 91.47 88.10 30.33 -3.68 Farm value<sup>3</sup> 483.79 589.12 531.56 9.87 -9.77 494.82 581.78 551.16 11.39 -5.26 Landed cost4 557.80 690.43 629.04 12.77 -8.89 562.42 673.25 639.26 13.66 -5.05 13.59 Transport % of landed cost5 13.27 14.67 15.50 2.23 0.82 12.02 13.78 1.76 0.20 North MT6 - Santos7 South GO<sup>6</sup> - Paranagua<sup>7</sup>

		1 tol til 1 TII – Santos					South GO - I all allagua				
		\$/mt					\$/mt				
Truck	59.59	102.44	99.71	67.33	-2.66	34.66	59.39	58.82	69.71	-0.96	
Ocean <sup>7</sup>	54.00	55.85	42.60	-21.11	-23.72	53.00	54.60	41.60	-21.51	-23.81	
Total transportation	113.59	158.29	142.31	25.28	-10.10	87.66	113.99	100.42	14.56	-11.90	
Farm value <sup>8</sup>	513.31	566.29	514.98	0.33	-9.06	495.90	565.92	513.50	3.55	-9.26	
Landed cost	626.90	724.58	657.29	4.85	-9.29	583.56	679.91	613.92	5.20	-9.71	
Transport % of landed cost	18.12	21.85	21.65	3.53	-0.19	15.02	16.77	16.36	1.34	-0.41	
<sup>1</sup> Rail rates include fuel surcharges, but do not include the cost of purchasing empty rail cars in the											
secondary rail markets, wl	secondary rail markets, which could exceed the rail tariff rate plus fuel surcharge shown in the table. Second quarter rates were revised from										

what were previously published.

<sup>2</sup>Source for the U.S. ocean rates: O'Neil Commodity Consulting.

Note: qtr. = quarter; yr. = year; mt = metric ton; "-" indicates data not required or applicable. Totals may not add up exactly because of rounding. Source: Compiled by the USDA, Agricultural Marketing Service.

Year-to-year landed costs. Year to year, landed costs rose in both countries. For exports from both countries, the increase reflected higher transportation costs and higher soybean farm values (except for IA-Gulf-route shipments to China, which had stable transportation costs).

U.S. exports to China. According to USDA's Federal Grain Inspection Service, the United States exported 2.09 million metric tons (mmt) of soybeans to China in third quarter 2022, versus 2.08 mmt in the previous quarter and 1.18 mmt in third quarter 2021. Total U.S. soybean exports are projected at 55.66 mmt in marketing year (MY) 2022/23, down from 58.72 mmt in MY 2021/22, according to USDA's November *World Agricultural Supply and Demand Estimates* report. On the other hand, Brazil is projected to export 89.50 mmt in MY 2022/23, up from 79.36 mmt in MY 2021/22. For more on soybean transportation in Brazil, see the quarterly *Brazil Soybean Transportation* report. *Surajudeen.Olowlayemo@usda.gov* 

<sup>&</sup>lt;sup>3</sup>Source for the U.S. farm values: USDA, National Agricultural Statistics Service.

<sup>&</sup>lt;sup>4</sup>Landed cost is total cost plus farm value.

<sup>&</sup>lt;sup>5</sup>For transportation as a percentage of landed costs, the year-to-year and quarter-to-quarter columns record percentage-point differences.

<sup>&</sup>lt;sup>6</sup>Producing regions: MT= Mato Grosso, GO = Goiás.

<sup>&</sup>lt;sup>7</sup>Export ports.

<sup>&</sup>lt;sup>8</sup>Source for Brazil's ocean rates: University of São Paulo, Brazil, and USDA, Agricultural Marketing Service.

<sup>&</sup>lt;sup>9</sup>Source for Brazil's farm values: Companhia Nacional de Abastecimento.

## **Grain Transportation Indicators**

Table 1 **Grain transport cost indicators**<sup>1</sup>

	Truck	Ra	il	Barge	Oc	ean
For the week ending		Non-Shuttle	Shuttle		Gulf	Pacific
12/07/22	333	337	294	488	255	229
11/30/22	345	335	281	522	N/A	N/A

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

Source: USDA, Agricultural Marketing Service.

Table 2

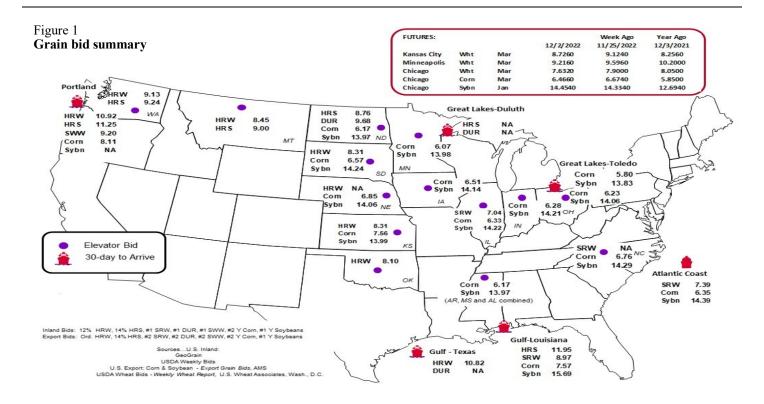
Market Update: U.S. origins to export position price spreads (\$/bushel)

Commodity	Origin-destination	12/2/2022	11/25/2022
Corn	IL-Gulf	-1.24	N/A
Corn	NE-Gulf	-0.73	N/A
Soybean	IA-Gulf	-1.55	N/A
HRW	KS–Gulf	-2.51	N/A
HRS	ND-Portland	-2.49	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.



## **Rail Transportation**

Table 3

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

For the week ending:		ast	j j j j j j	West		U.S. total	Car	nada
11/26/2022	CSXT	NS	BNSF	KCS	UP	U.S. total	CN	CP
This week	1,611	2,928	9,908	1,017	4,797	20,261	6,559	6,627
This week last year	1,652	1,798	13,532	1,296	5,337	23,615	3,235	4,036
2022 YTD	82,980	115,477	519,059	59,583	270,499	1,047,598	186,840	188,068
2021 YTD	83,980	109,450	551,393	57,421	288,955	1,091,199	191,867	222,721
2022 YTD as % of 2021 YTD	99	106	94	104	94	96	97	84
Last 4 weeks as % of 2021*	111	151	90	106	93	98	161	129
Last 4 weeks as % of 3-yr. avg.**	114	121	92	108	98	99	134	112
Total 2021	93,935	120,706	609,890	64,818	318,002	1,207,351	209,715	242,533

<sup>\*</sup>The past 4 weeks of this year as a percent of the same 4 weeks last year.

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

Source: Association of American Railroads.

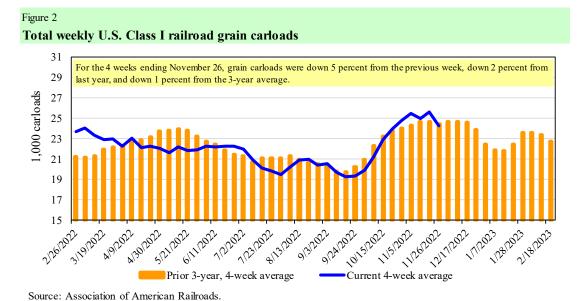


Table 4

Railcar auction offerings<sup>1</sup> (\$/car)<sup>2</sup>

Fo	or the week ending:		<u>Delivery period</u>							
	12/1/2022	Dec-22	Dec-21	Jan-23	Jan-22	Feb-23	Feb-22	Mar-23	Mar-22	
BNSF <sup>3</sup>	COT grain units	no bids	no bids	31	1	40	no bids	0	no bids	
	COT grain single-car	no bids	0	538	0	455	0	453	0	
UP <sup>4</sup>	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 offer	no offer	no offer	n/a	n/a	

<sup>&</sup>lt;sup>1</sup>Auction offerings are for single-car and unit train shipments only.

Source: USDA, Agricultural Marketing Service.

<sup>\*\*</sup>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.

<sup>&</sup>lt;sup>2</sup>Average premium/discount to tariff, last auction. n/a = not available.

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

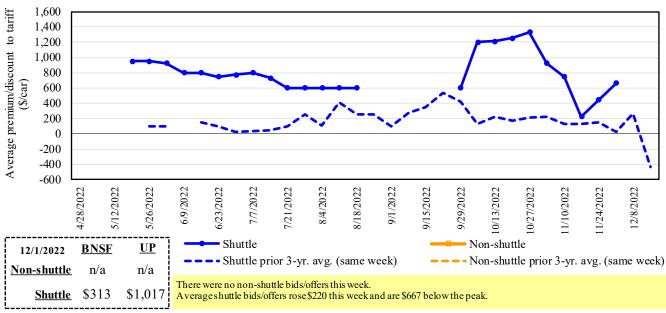
<sup>&</sup>lt;sup>4</sup>UP - GCAS = Union Pacific Railroad Grain Car Allocation System.

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.

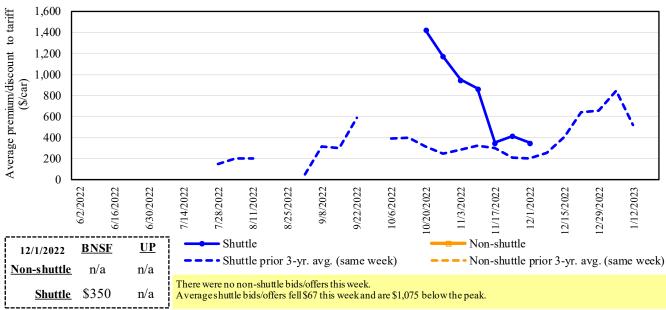
The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/ supply.

Figure 3
Secondary market bids/offers for railcars to be delivered in December 2022



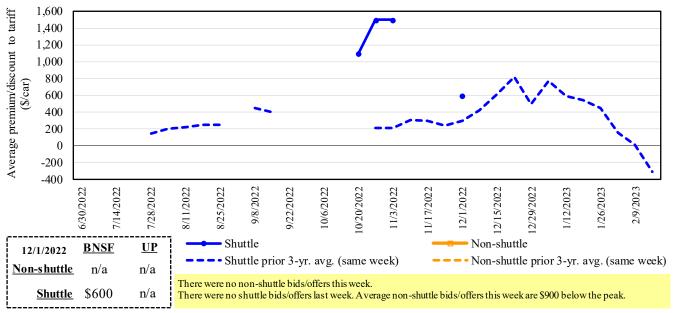
Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year; BNSF = BNSF Railway; UP = Union Pacific Railroad. Source: USDA, Agricultural Marketing Service.

Figure 4
Secondary market bids/offers for railcars to be delivered in January 2023



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
Secondary market bids/offers for railcars to be delivered in February 2023



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 5

Weekly secondary railcar market (\$/car)<sup>1</sup>

	For the week ending:			De	livery period		
	12/1/2022	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23
	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
hutt	Change from same week 2021	n/a	n/a	n/a	n/a	n/a	n/a
No n-shuttle	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 2021	n/a	n/a	n/a	n/a	n/a	n/a
	BNSF-GF	313	350	600	300	n/a	(150)
	Change from last week	(77)	(183)	n/a	100	n/a	0
Shuttle	Change from same week 2021	(34)	(50)	200	100	n/a	n/a
Shu	UP-Pool	1,017	n/a	n/a	700	n/a	n/a
	Change from last week	517	n/a	n/a	0	n/a	n/a
	Change from same week 2021	556	n/a	n/a	450	n/a	n/a

<sup>&</sup>lt;sup>1</sup>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 6

Tariff rail rates for unit and shuttle train shipments<sup>1</sup>

	s for unit and shuttle tr			Fuel			Percent
	2	2	Tariff	surcharge_	Tariff plus surch		change
December 2022	Origin region <sup>3</sup>	Destination region <sup>3</sup>	rate/car	per car	metric ton	bus he l <sup>2</sup>	Y/Y <sup>4</sup>
<u>Unit train</u>							
Wheat	Wichita, KS	St. Louis, MO	\$3,695	\$319	\$39.86	\$1.08	4
	Grand Forks, ND	Duluth-Superior, MN	\$3,858	\$149	\$39.79	\$1.08	10
	Wichita, KS	Los Angeles, CA	\$7,490	\$765	\$81.98	\$2.23	13
	Wichita, KS	New Orleans, LA	\$4,600	\$561	\$51.25	\$1.39	7
	Sioux Falls, SD	Galveston-Houston, TX	\$7,226	\$628	\$77.99	\$2.12	12
	Colby, KS	Galveston-Houston, TX	\$4,850	\$614	\$54.26	\$1.48	7
	Amarillo, TX	Los Angeles, CA	\$5,121	\$855	\$59.34	\$1.62	7
Corn	Champaign-Urbana, IL	New Orleans, LA	\$4,000	\$634	\$46.02	\$1.17	7
	Toledo, OH	Raleigh, NC	\$8,551	\$697	\$91.83	\$2.33	14
	Des Moines, IA	Davenport, IA	\$2,655	\$134	\$27.70	\$0.70	8
	Indianapolis, IN	Atlanta, GA	\$6,593	\$523	\$70.67	\$1.80	14
	Indianapolis, IN	Knoxville, TN	\$5,564	\$339	\$58.62	\$1.49	12
	Des Moines, IA	Little Rock, AR	\$4,250	\$394	\$46.12	\$1.17	10
	Des Moines, IA	Los Angeles, CA	\$6,130	\$1,148	\$72.28	\$1.84	12
Soybeans	Minneapolis, MN	New Orleans, LA	\$5,431	\$984	\$63.71	\$1.73	59
	Toledo, OH	Huntsville, AL	\$7,037	\$497	\$74.81	\$2.04	12
	Indianapolis, IN	Raleigh, NC	\$7,843	\$706	\$84.90	\$2.31	15
	Indianapolis, IN	Huntsville, AL	\$5,689	\$335	\$59.82	\$1.63	12
	Champaign-Urbana, IL	New Orleans, LA	\$4,865	\$634	\$54.61	\$1.49	8
Shuttle train							
Wheat	Great Falls, MT	Portland, OR	\$4,393	\$440	\$47.99	\$1.31	15
	Wichita, KS	Galveston-Houston, TX	\$4,311	\$343	\$46.21	\$1.26	5
	Chicago, IL	Albany, NY	\$7,090	\$658	\$76.94	\$2.09	16
	Grand Forks, ND	Portland, OR	\$6,051	\$760	\$67.64	\$1.84	16
	Grand Forks, ND	Galveston-Houston, TX	\$5,399	\$792	\$61.47	\$1.67	8
	Colby, KS	Portland, OR	\$5,923	\$1,007	\$68.82	\$1.87	6
Corn	Minneapolis, MN	Portland, OR	\$5,660	\$926	\$65.40	\$1.66	22
	Sioux Falls, SD	Tacoma, WA	\$5,620	\$848	\$64.23	\$1.63	21
	Champaign-Urbana, IL	New Orleans, LA	\$4,170	\$634	\$47.70	\$1.21	13
	Lincoln, NE	Galveston-Houston, TX	\$4,360	\$494	\$48.20	\$1.22	19
	Des Moines, IA	Amarillo, TX	\$4,670	\$496	\$51.30	\$1.30	10
	Minneapolis, MN	Tacoma, WA	\$5,660	\$918	\$65.32	\$1.66	22
	Council Bluffs, IA	Stockton, CA	\$5,580	\$950	\$64.84	\$1.65	23
Soybeans	Sioux Falls, SD	Tacoma, WA	\$6,350	\$848	\$71.47	\$1.95	19
-	Minneapolis, MN	Portland, OR	\$6,400	\$926	\$72.75	\$1.98	20
	Fargo, ND	Tacoma, WA	\$6,250	\$754	\$69.55	\$1.89	18
	Council Bluffs, IA	New Orleans, LA	\$5,095	\$731	\$57.85	\$1.57	9
	Toledo, OH	Huntsville, AL	\$5,277	\$497	\$57.33	\$1.56	17
	Grand Island, NE	Portland, OR	\$5,730	\$1,031	\$67.14	\$1.83	15

<sup>&</sup>lt;sup>1</sup>A unit train refers to shipments of at least 25 cars. Shuttle train rates are generally available for qualified shipments of

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

<sup>75-120</sup> cars that meet railroad efficiency requirements.

<sup>&</sup>lt;sup>2</sup>Approximate load per car = 111 short tons (100.7 metric tons): com 56 pounds per bushel (lbs/bu), wheat and soybeans 60 lbs/bu.

<sup>&</sup>lt;sup>3</sup>Regional economic areas are defined by the Bureau of Economic Analysis (BEA).

<sup>&</sup>lt;sup>4</sup>Percentage change year over year (Y/Y) calculated using tariff rate plus fuel surcharge.

Table 7

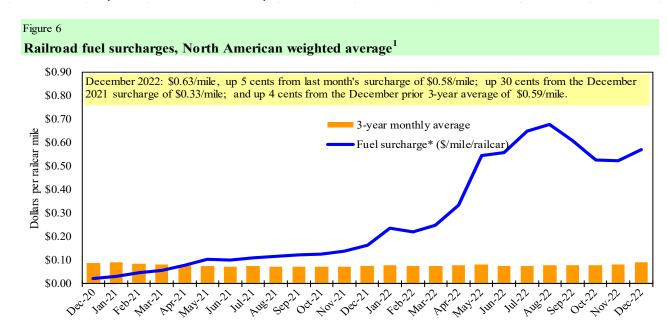
Tariff rail rates for U.S. bulk grain shipments to Mexico

Date	: Decembe	r 2021		Fuel	Tari	ff rate plus	Percent
	Origin		Tariff rate	surcharge	fuel surc	harge per:	change <sup>4</sup>
Commodity	state	Destination region	per car <sup>1</sup>	per car <sup>2</sup>	metric ton <sup>3</sup>	bushel <sup>3</sup>	Y/Y
Wheat	MT	Chihuahua, CI	\$7,699	\$0	\$78.67	\$2.14	4
	OK	Cuautitlan, EM	\$6,900	\$230	\$72.85	\$1.98	6
	KS	Guadalajara, JA	\$7,619	\$719	\$85.19	\$2.32	7
	TX	Salinas Victoria, NL	\$4,420	\$138	\$46.57	\$1.27	4
Corn	IA	Guadalajara, JA	\$9,102	\$663	\$99.77	\$2.53	6
	SD	Celaya, GJ	\$8,300	\$0	\$84.81	\$2.15	2
	NE	Queretaro, QA	\$8,322	\$462	\$89.75	\$2.28	5
	SD	Salinas Victoria, NL	\$6,905	\$0	\$70.55	\$1.79	0
	MO	Tlalnepantla, EM	\$7,687	\$450	\$83.14	\$2.11	5
	SD	Torreon, CU	\$7,825	\$0	\$79.95	\$2.03	2
Soybeans	MO	Bojay (Tula), HG	\$8,647	\$614	\$94.63	\$2.57	5
	NE	Guadalajara, JA	\$9,207	\$646	\$100.67	\$2.74	5
	IA	El Castillo, JA	\$9,510	\$0	\$97.17	\$2.64	1
	KS	Torreon, CU	\$8,109	\$466	\$87.61	\$2.38	5
Sorghum	NE	Celaya, GJ	\$7,932	\$597	\$87.15	\$2.21	6
	KS	Queretaro, QA	\$8,108	\$287	\$85.77	\$2.18	3
	NE	Salinas Victoria, NL	\$6,713	\$231	\$70.94	\$1.80	3
	NE	Torreon, CU	\$7,225	\$438	\$78.29	\$1.99	6

<sup>&</sup>lt;sup>1</sup>Rates are based upon published tariff rates for high-capacity shuttle trains. Shuttle trains are available for qualified

As we incorporate the change, Table 7 updates will be delayed.

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



<sup>&</sup>lt;sup>1</sup> Weighted by each Class I railroad's proportion of grain traffic for the prior year.

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

shipments of 75-110 cars that meet railroad efficiency requirements.

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

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

<sup>&</sup>lt;sup>4</sup>Percentage change calculated using tariff rate plus fuel surchage; Y/Y = year over year.

<sup>&</sup>lt;sup>5</sup> As of January 1, both BNSF and Union Pacific changed their billing and reporting of rates to Mexico.

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

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

## **Barge Transportation**

Figure 7
Illinois River barge freight rate<sup>1,2</sup>



<sup>&</sup>lt;sup>1</sup>Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); <sup>2</sup>4-week moving average of the 3-year average.

Table 8
Weekly barge freight rates: Southbound only

		Twin Cities	Mid- Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo- Memphis
Rate <sup>1</sup>	12/6/2022 11/29/2022	-	830 843	878 939	806 842	811 892	811 892	708 741
\$/ton	12/6/2022 11/29/2022	-	44.16 44.85	40.74 43.57	32.16 33.60	38.04 41.83	32.76 36.04	22.23 23.27
Curren	t week % chang	e from the	same week:					
	Last year 3-year avg. <sup>2</sup>	-	36 85	54 99	77 139	37 98	37 98	67 128
Rate <sup>1</sup>	January March	-	- -	864 660	711 578	747 628	747 628	646 547

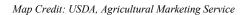
<sup>&</sup>lt;sup>1</sup>Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); <sup>2</sup>4-week moving average; ton = 2,000 pounds; "-" data not available. Source: USDA, Agricultural Marketing Service.

#### Figure 8 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.

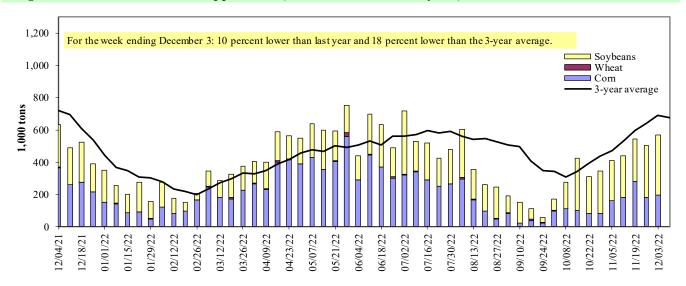




<sup>\*</sup>Source: USDA, Agricultural Marketing Service.

Figure 9

Barge movements on the Mississippi River<sup>1</sup> (Locks 27 - Granite City, IL)



<sup>&</sup>lt;sup>1</sup> The 3-year average is a 4-week moving average.

Note: The U.S. Army Corps of Engineers has recently migrated its lock and vessel database and has noted the latest data may be revised in coming weeks. Source: U.S. Army Corps of Engineers.

Table 9 **Barge grain movements (1,000 tons)** 

For the week ending 12/03/2022	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	41	0	80	0	121
Winfield, MO (L25)	127	0	242	0	370
Alton, IL (L26)	180	0	334	0	513
Granite City, IL (L27)	194	0	373	0	567
Illinois River (La Grange)	29	0	85	0	114
Ohio River (Olmsted)	90	0	125	0	215
Arkansas River (L1)	0	6	21	0	27
Weekly total - 2022	284	6	519	0	808
Weekly total - 2021	435	15	392	26	867
2022 YTD <sup>1</sup>	15,477	1,506	12,929	227	30,139
2021 YTD <sup>1</sup>	22,167	1,558	9,860	278	33,862
2022 as % of 2021 YTD	70	97	131	82	89
Last 4 weeks as % of 2021 <sup>2</sup>	79	13	107	0	92
Total 2021	23,516	1,634	11,325	297	36,772

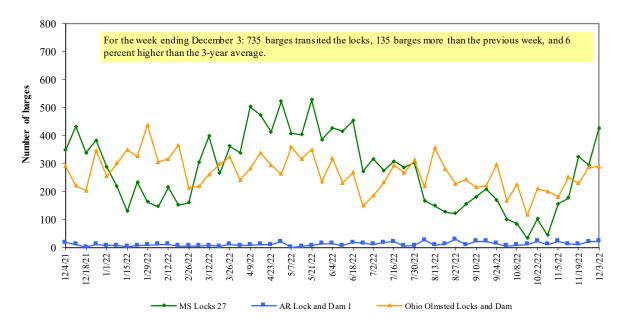
<sup>&</sup>lt;sup>1</sup> Weekly total, YTD (year-to-date), and calendar year total include MI/27, OH/Olmsted, and AR/1; Other refers to oats, barley, sorghum, and rye. Total may not add exactly due to rounding.

Note: L (as in "L15") refers to a lock, locks, or locks and dam facility. The U.S. Army Corps of Engineers has recently migrated its lock and vessel database and has noted the latest data may be revised in coming weeks.

Source: U.S. Army Corps of Engineers.

<sup>&</sup>lt;sup>2</sup> As a percent of same period in 2021.

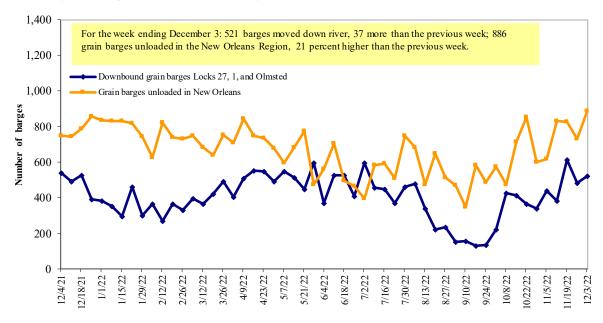
Figure 10
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



Note: The U.S. Army Corps of Engineers has recently migrated its lock and vessel database and has noted the latest data may be revised in coming weeks.

Source: U.S. Army Corps of Engineers.

Figure 11 **Grain barges for export in New Orleans region** 



Note: Olmsted = Olmsted Locks and Dam. The U.S. Army Corps of Engineers has recently migrated its lock and vessel database and has noted the latest data may be revised in coming weeks.

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 move-

Table 10 Retail on-highway diesel prices, week ending 12/5/2022 (U.S. \$/gallon)

		<u>.</u>	Change	e from
Region	Location	Price	Week ago	Year ago
I	East Coast	5.191	-0.145	1.533
	New England	5.634	-0.226	1.980
	Central Atlantic	5.729	-0.147	1.905
	Lower Atlantic	4.953	-0.135	1.397
II	Midwest	4.907	-0.201	1.371
III	Gulf Coast	4.524	-0.175	1.122
IV	Rocky Mountain	5.250	-0.142	1.470
V	West Coast	5.502	-0.164	1.086
	West Coast less California	5.227	-0.142	1.235
	California	5.816	-0.190	1.027
Total	United States	4.967	-0.174	1.293

<sup>&</sup>lt;sup>1</sup>Diesel fuel prices include all taxes. Prices represent an average of all types of diesel fuel.

Note: On June 13, the Energy Information Administration implemented a new methodology to estimate weekly on-highway diesel fuel prices.

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

Figure 12 Weekly diesel fuel prices, U.S. average For the week ending December 5, the U.S. average diesel fuel price decreased 17.4 cents ■ Current year Last year from the previous week to \$4.967 per gallon, 129.3 cents above the same week last year. \$4.967 \$3.674 \$6.200 \$6.000 \$5.800 \$5.600 \$5.400 \$5.200 \$5.000 \$4.800 \$4.600 \$4.400\$4.200 \$4.000 \$3.800 \$3.600\$3.400 \$3.200 \$3.000 \$2.800 \$2.600 \$2.400 \$2.200 \$2.000 8/1/2022 8/29/2022 7/18/2022 9/19/2022

Note: On June 13, the Energy Information Administration implemented a new methodology to estimate weekly on-highway diesel fuel prices. Source: U.S. Department of Energy, Energy Information Administration, Retail On-Highway Diesel Prices.

8/22/2022

7/11/2022

9/12/2022

1 0/3/20 22

0/17/2022

0/31/2022 11/7/2022 11/21/2022

# **Grain Exports**

Table 11
U.S. export balances and cumulative exports (1,000 metric tons)

ever empore ammines una cumunut		3 (2,000 2							
	Wheat					Corn	Soybe ans	Total	
For the week ending	HRW	SRW	HRS	SWW	DUR	All wheat			
Export balances <sup>1</sup>									
11/24/2022	837	529	1,371	1,097	123	3,957	12,579	18,232	34,768
This week year ago	1,979	601	1,114	748	52	4,495	25,784	16,097	46,375
Cumulative exports-marketing year <sup>2</sup>									
2022/23 YTD	2,800	1,683	2,769	2,146	97	9,495	5,773	19,066	34,334
2021/22 YTD	3,710	1,479	2,729	1,810	97	9,825	9,647	21,070	40,542
YTD 2022/23 as % of 2021/22	75	114	101	119	100	97	60	90	85
Last 4 wks. as % of same period 2021/22	44	86	116	139	158	85	45	124	76
Total 2021/22	7,172	2,786	5,254	3,261	196	18,669	59,764	57,189	135,622
Total 2020/21	8,422	1,790	7,500	6,438	656	24,807	66,958	60,571	152,335

<sup>&</sup>lt;sup>1</sup> Current unshipped (outstanding) export sales to date.

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 12 **Top 5 importers**<sup>1</sup> **of U.S. corn** 

For the week ending 11/24/2022	Total com	nitments <sup>2</sup>	% change	Exports <sup>3</sup>
	2022/23	2021/22	current MY	3-yr. avg.
	current MY	last MY	from last MY	2019-21
		1,000 mt -		
Mexico	9066.3	10,148	(11)	15,227
China	3502	12,005	(71)	12,616
Japan	1484	3,083	(52)	10,273
Columbia	307	1,895	(84)	4,398
Korea	19	72	(73)	2,563
Top 5 importers	14,379	27,203	(47)	45,077
Total U.S. corn export sales	18,352	35,430	(48)	56,665
% of projected exports	34%	56%		
Change from prior week <sup>2</sup>	603	1,021		
Top 5 importers' share of U.S. corn				
export sales	78%	77%		80%
<b>USDA forecast November 2022</b>	54,707	62,875	(13)	
Corn use for ethanol USDA forecast,				
November 2022	133,985	135,281	(1)	

<sup>&</sup>lt;sup>1</sup>Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2021/22; marketing year (MY) = Sep 1 - Aug 31.

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

Source: USDA, Foreign Agricultural Service.

<sup>&</sup>lt;sup>2</sup>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.

<sup>&</sup>lt;sup>3</sup>FAS marketing year ranking reports (carry over plus accumulated export); yr. = year; avg. = average.

Table 13

Top 5 importers<sup>1</sup> of U.S. soybeans

For the week ending 11/24/2022	Total commitments <sup>2</sup>		% change	Exports <sup>3</sup>
	2022/23	2021/22	current MY	3-yr. avg.
	current MY	last MY	from last MY	2019-21
				- 1,000 mt -
China	22,602	20,389	11	27,283
Mexico	2,969	2,502	19	4,929
Egypt	744	1,456	(49)	3,553
Japan	1,136	1,005	13	2,266
Indonesia	460	521	(12)	2,116
Top 5 importers	27,912	25,873	8	40,147
Total U.S. soybean export sales	37,298	37,167	0	54,231
% of projected exports	67%	63%		
change from prior week <sup>2</sup>	694	1,063		
Top 5 importers' share of U.S.				
soybean export sales	75%	70%		74%
USDA forecast, November 2022	55,722	58,801	(5)	

 $<sup>^{1}</sup>Based \ on \ USDA, Foreign \ Agricultural \ Service \ (FAS) \ marketing \ year \ ranking \ reports \ for \ 2021/22; \ marketing \ year \ (MY) = Sep \ 1 \ - \ Aug \ 31.$ 

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

Source: USDA, Foreign Agricultural Service.

Table 14

Top 10 importers<sup>1</sup> of all U.S. wheat

For the week ending 11/24/2022	Total Comm	itments <sup>2</sup>	% change	Exports <sup>3</sup>
<u> </u>	2022/23	2021/22	current MY	3-yr. avg.
	current MY	last MY	from last MY	2019-21
		1,000 mt -		- 1,000 mt -
Mexico	2,297	2,530	(9)	3,566
Philippines	1,681	2,150	(22)	2,985
Japan	1,450	1,577	(8)	2,453
China	616	848	(27)	1,537
Nigeria	630	1,566	(60)	1,528
Korea	887	858	3	1,459
Taiwan	504	599	(16)	1,106
Indonesia	299	66	355	711
Thailand	502	376	34	703
Colombia	406	447	(9)	621
Top 10 importers	9,271	11,017	(16)	16,669
Total U.S. wheat export sales	13,452	14,319	(6)	22,763
% of projected exports	64%	66%		
change from prior week <sup>2</sup>	155	79		
Top 10 importers' share of U.S.				
wheat export sales	69%	77%		73%
USDA forecast, November 2022	21,117	21,798	(3)	

<sup>&</sup>lt;sup>1</sup> Based on USDA, Foreign Agricultural Service( FAS) marketing year ranking reports for 2020/21; Marketing year (MY) = Jun 1 - May 31.

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

Source: USDA, Foreign Agricultural Service.

<sup>&</sup>lt;sup>2</sup>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.

<sup>&</sup>lt;sup>3</sup>FAS marketing year ranking reports (carryover plus accumulated export); yr. = year; avg. = average.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> FAS marketing year final reports (carryover plus accumulated export); yr. = year; avg. = average.

Table 15
Grain inspections for export by U.S. port region (1,000 metric tons)

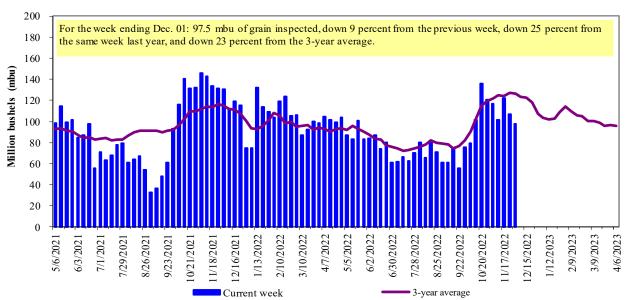
	For the week ending	Previous	Current week			2022 YTD as	Last 4-we	eeks as % of:	
Port regions	12/01/22	week*	as % of previous	2022 YTD*	2021 YTD*	% of 2021 YTD	Last year	Prior 3-yr. avg.	2021 total*
Pacific Northwest									
Wheat	226	106	214	9,388	12,882	73	92	63	13,243
Corn	67	0	n/a	9,021	12,565	72	35	24	13,420
Soybeans	716	634	113	12,603	12,635	100	91	110	14,540
Total	1,010	739	137	31,011	38,081	81	88	92	41,203
Mississippi Gulf	1,010	10)	101	01,011	20,001	VI	00	/ <b>-</b>	11,200
Wheat	0	28	0	3,978	3,082	129	17	15	3,202
Corn	228	138	166	28,947	36,794	79	51	56	38,498
Soybeans	702	1,301	54	26,313	23,249	113	82	86	27,159
Total	930	1,467	63	59,239	63,125	94	72	77	68,858
Texas Gulf	700	1,107	00	57,207	00,120	<b>,</b>	/ <b>-</b>	71	00,020
Wheat	66	67	99	3,264	3,670	89	111	117	3,888
Corn	8	0	n/a	602	584	103	37	79	627
Soybeans	60	52	115	544	1,581	34	97	111	1,611
Total	134	119	113	4,410	5,836	76	95	111	6,126
Interior		11)	110	.,	0,000	70	70	***	0,120
Wheat	51	58	87	2,657	2,789	95	96	101	2,973
Corn	212	164	129	8,232	9,366	88	75	86	10,157
Soybeans	120	103	116	6,407	5,949	108	86	90	6,525
Total	382	325	118	17,296	18,104	96	81	90	19,656
<b>Great Lakes</b>									
Wheat	10	41	24	337	433	78	139	47	536
Corn	0	0	n/a	148	121	122	0	0	145
Soybeans	78	48	162	668	552	121	70	97	592
Total	88	89	99	1,153	1,107	104	72	76	1,273
Atlantic									
Wheat	0	0	n/a	168	128	131	0	0	128
Corn	0	5	0	290	81	357	n/a	n/a	85
Soybeans	74	145	51	2,421	1,835	132	114	130	2,184
Total	74	149	50	2,879	2,044	141	115	128	2,397
U.S. total from ports	*								
Wheat	352	299	118	19,793	22,984	86	88	68	23,969
Corn	515	306	168	47,239	59,512	79	57	62	62,932
Soybeans	1,750	2,282	77	48,956	45,801	107	86	96	52,612
Total	2,617	2,888	91	115,988	128,298	90	80	85	139,512

<sup>\*</sup>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.

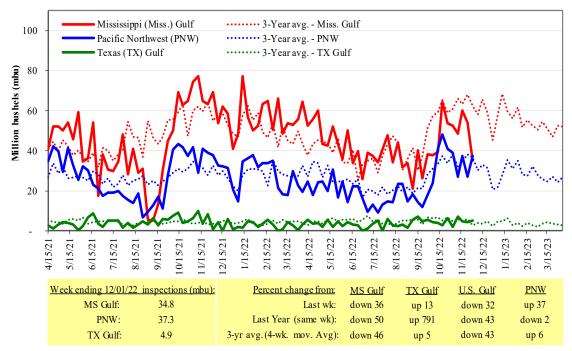
Figure 13
U.S. grain inspected for export (wheat, corn, and soybeans)



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

Source: USDA, Federal Grain Inspection Service.

Figure 14
U.S. Grain inspections: U.S. Gulf and PNW<sup>1</sup> (wheat, corn, and soybeans)



Source: USDA, Federal Grain Inspection Service.

## **Ocean Transportation**

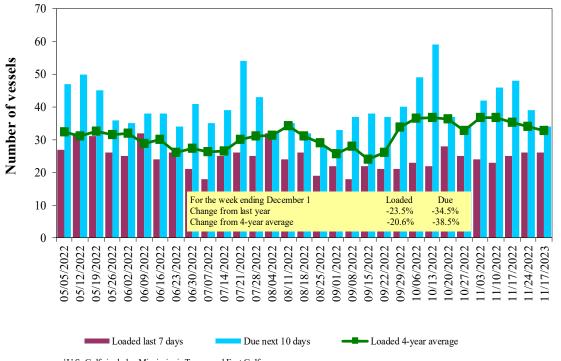
Table 16
Weekly port region grain ocean vessel activity (number of vessels)

				Pacific
		Gulf		Northwest
		Loaded	Due next	
Date	In port	7-days	10-days	In port
12/1/2022	38	26	34	15
11/24/2022	41	26	39	19
2021 range	(1057)	(548)	(1569)	(427)
2021 average	34	32	49	15

Note: The data is voluntarily collected and may not be complete.

Source: USDA, Agricultural Marketing Service.

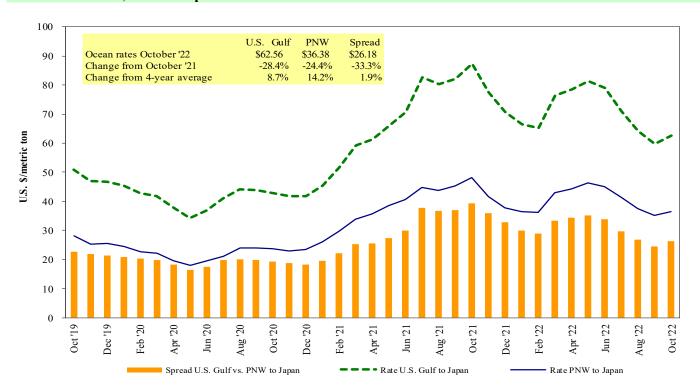
Figure 15
U.S. Gulf<sup>1</sup> vessel loading activity



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

Figure 16

Grain vessel rates, U.S. to Japan



Note: PNW = Pacific Northwest.
Source: O'Neil Commodity Consulting.

Table 17

Ocean freight rates for selected shipments, week ending 12/3/2022

Export	Import	Grain	Loading	Volume loads	Freight rate
region	region	types	date	(metric tons)	(US\$/metric ton)
U.S. Gulf	Japan	Heavy grain	Nov 1/10, 2022	50,000	79.25
U.S. Gulf	Japan	Heavy grain	Jul 20/30, 2022	50,000	81.50
U.S. Gulf	Japan	Heavy grain	Jun 1/10, 2022	50,000	89.65
U.S. Gulf	Japan	Heavy grain	May 1/20, 2022	50,000	78.90
U.S. Gulf	S. China	Corn	Aug 1/10, 2022	68,000	71.00
U.S. Gulf	Djibouti	Sorghum	Oct 5/15, 2022	13,920	94.08*
U.S. Gulf	Djibouti	Wheat	Nov 5/15, 2022	22,500	102.88*
U.S. Gulf	Honduras	Soybean Meal	Feb 18/28, 2022	7,820	57.15*
U.S. Gulf	S. Korea	Heavy grain	Jun 1/Jul, 2022	55,000	82.75
U.S. Gulf	Sudan	Sorghum	Mar 1/10, 2022	35,790	149.97*
PNW	Yemen	Wheat	Jul 10/20, 2022	27,000	169.50*
Brazil	N. China	Heavy grain	Mar 18/27, 2022	64,000	56.85
Argentina	Taiwan	Corn	May 1/Jun, 2022	65,000	85.00

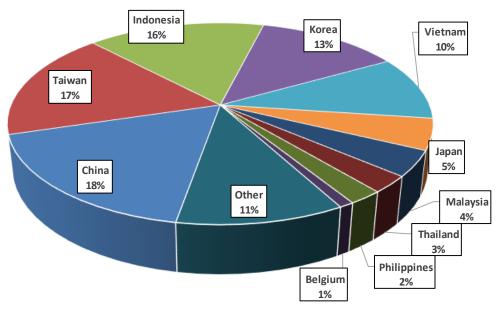
<sup>\*50</sup> percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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.

Figure 17
Top 10 destination markets for U.S. containerized grain exports, Jan-Aug 2022

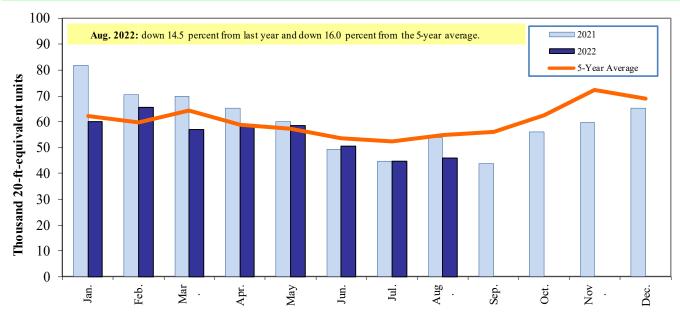


Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: '1001', '100190', '10020', '100200', '1003', '100300', '1004', '100400', '1005', '100590', '1007', '100700', '110100', '11020', '110290', '1201', '120100', '120190', '120190', '120810', '230210', '230310', '230330', '2304', and '230990'.

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

Figure 18

Monthly shipments of U.S. containerized grain exports



Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: '1001', '100190', '1002', '100200', '1003', '100300', '1004', '100400', '1005', '100590', '1007', '100700', '110100', '110220', '110220', '110290', '120100', '120190', '120810', '230210', '230310', '2304', and '230990'.

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

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