United States Department of Agriculture

Grain Transportation Report

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

Contact Us

November 7, 2019

Contents

Article/ Calendar
Grain Transportation Indicators
Rail
Barge
Truck
Exports
Ocean
Brazil
Mexico
Grain Truck/Ocean Rate Advisory
Datasets
Specialists
Subscription Information

The next release is November 14, 2019

WEEKLY HIGHLIGHTS

Weekly Grain Inspections Down

For the week ending October 31, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions reached 2.14 million metric tons (mmt). Inspections were down 20 percent from the previous week, down 28 percent from last year, and 36 percent below the 3-year average. Total exports of grain for the week were down primarily because of lower exports to Latin America and Europe. From the past week, inspections of wheat and corn fell 47 percent and 30 percent, respectively, and soybean inspections decreased 9 percent. Mississippi Gulf grain inspections decreased 28 percent from the previous week while inspections in the Pacific Northwest (PNW) dropped 8 percent.

Ocean Freight Rates Hit the Lowest Since the Past 12 weeks

Although still higher than the beginning of the year, ocean freight rates for shipping bulk grain hit the lowest level since the past 12 weeks. For the week ending October 31, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $49.50. This was 5 percent more than the beginning of the year, but 2 percent less than the previous week. The rate from PNW to Japan was $27 per mt, 8 percent more than the beginning of the year, but 4 percent less than the previous week. The last time ocean freight rates were at this level was during the week ending August 8, 2019. It is uncertain how long the ocean freight rates will remain at this level given the impending International Maritime Organization's regulation on sulfur emission effective January 1, 2020. The regulation could impact the supply of bulk vessels in the near term (see October 31, *Grain Transportation Report*).

Diesel Prices Remain Firm Under Pressure From Market Fundamentals

For the week ending November 4, diesel fuel prices decreased slightly from the previous week, falling 0.2 cents to $3.062 per gallon. In the previous week (ending October 28), prices had increased 1.4 cents per gallon in response to increasing crude oil prices, which had gained 5 percent from October 21 to 25. Additionally, according to the Department of Energy's Energy Information Administration, the distillate fuel market is confronting both stocks that have fallen each week since early September as well as distillate demand that has steadily increased during the same timeframe. These dynamics put upward pressure on diesel fuel prices.

Snapshots by Sector

Export Sales

For the week ending October 24, **unshipped balances** of wheat, corn, and soybeans totaled 23.3 mmt. This represents a 26-percent decrease in outstanding sales, compared to the same time last year. Net **corn export sales** reached .549 mmt, up 12 percent from the past week. Net **soybean export sales** were .944 mmt, up 99 percent from the previous week. Net weekly **wheat export sales** reached .494 mmt, up 99 percent from the from the previous week.

Rail

U.S. Class I railroads originated 21,135 **grain carloads** during the week ending October 26. This is a 2-percent increase from the previous week, 9 percent less than last year, and 11 percent lower than the 3-year average.

Average November shuttle **secondary railcar** bids/offers (per car) were $213 above tariff for the week ending October 31. This is $259 more than last week and $413 more than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending November 2, **barge grain movements** totaled 662,450 tons. This is a 0.2-percent decrease from the previous week and 23 percent less than the same period last year.

For the week ending November 2, 416 grain barges **moved down river**. This is 2 more barges than the previous week. There were 621 grain barges **unloaded in New Orleans**, 3 percent more than the previous week.

Ocean

For the week ending October 31, 22 **oceangoing grain vessels** were loaded in the Gulf—42 percent fewer than the same period last year. Forty vessels are expected to be loaded within the next 10 days (starting November 1). This is 27 percent fewer than the same period last year.

Preferred citation: U.S. Dept. of Agriculture, Agricultural Marketing Service. *Grain Transportation Report.* November 7, 2019.
Web: http://dx.doi.org/10.9752/TS056.11-07-2019

Feature Article/Calendar

Third-Quarter Wheat Transportation Costs Up; Landed Costs Down

Transportation costs for shipping wheat from Kansas and North Dakota to Japan through the Pacific Northwest (PNW) and U.S. Gulf increased during the third quarter 2019. Transportation costs for shipping wheat from each of these States increased from the second quarter, primarily because of higher rail and ocean rates (tables 1 and 2). Wheat farm values for each State continued to fall during the third quarter, forcing total landed costs down from second quarter 2019 (quarter to quarter) and from third quarter 2018 (year to year).

Quarter to quarter, the transportation costs for shipping wheat via PNW to Japan increased 3 percent originating from Kansas and 2 percent originating from North Dakota, primarily because of higher ocean rates (table 1). Year to year, these same costs increased 1 percent starting from Kansas and 3 percent from North Dakota, partly because of higher ocean rates.

Quarter to quarter, the transportation costs for shipping wheat via the U.S. Gulf to Japan increased 6 percent starting from Kansas and 5 percent starting from North Dakota (table 2). Year to year, these same costs increased 4 percent for both origins, Kansas and North Dakota, mainly because of higher ocean freight rates. Overall, third-quarter wheat transportation costs represented 37 to 42 percent of the landed costs (farm value plus transportation costs), which was above the previous quarter and last year.

Table 1: Quarterly rate comparisons for shipping Kansas & North Dakota wheat to Japan through the PNW

	Kansas					North Dakota				
Mode	2018 3rd qtr	2019 2nd qtr	2019 3rd qtr	Year-to-Year change	Quarterly change	2018 3rd qtr	2019 2nd qtr	2019 3rd qtr	Year-to-Year change	Quarterly change
			$/metric ton	%	%			$/metric ton	%	%
Truck	10.54	10.98	9.18	-12.90	-16.39	10.54	10.98	9.18	-12.90	-16.39
Rail[1]	63.41	62.16	62.93	-0.76	1.24	56.55	57.96	57.39	1.49	-0.98
Ocean vessel	24.97	23.56	27.90	11.73	18.42	24.97	23.56	27.90	11.73	18.42
Transportation Costs	98.92	96.70	100.01	1.10	3.42	92.06	92.50	94.47	2.62	2.13
Farm Value[2]	184.94	167.67	147.83	-20.07	-11.83	189.48	175.63	162.53	-14.22	-7.46
Total Landed Cost	283.86	264.37	247.84	-12.69	-6.25	281.54	268.13	257.00	-8.72	-4.15
Transport % of landed cost	34.85	36.58	40.35			32.70	34.50	36.76		

Table 2: Quarterly rate comparisons for shipping Kansas & North Dakota wheat to Japan through the Gulf

	Kansas					North Dakota				
Mode	2018 3rd qtr	2019 2nd qtr	2019 3rd qtr	Year-to-Year change	Quarterly change	2018 3rd qtr	2019 2nd qtr	2019 3rd qtr	Year-to-Year change	Quarterly change
			$/metric ton	%	%			$/metric ton	%	%
Truck	10.54	10.98	9.18	-12.90	-16.39	10.54	10.98	9.18	-12.90	-16.39
Rail[1]	42.66	42.88	43.31	1.52	1.00	59.73	60.14	60.57	1.41	0.71
Ocean vessel	45.23	42.78	50.05	10.66	16.99	45.23	42.78	50.05	10.66	16.99
Transportation Costs	98.43	96.64	102.54	4.18	6.11	115.50	113.90	119.80	3.72	5.18
Farm Value[2]	184.94	167.67	147.83	-20.07	-11.83	189.48	175.63	162.53	-14.22	-7.46
Total Landed Cost	283.37	264.31	250.37	-11.65	-5.27	304.98	289.53	282.33	-7.43	-2.49
Transport % of landed cost	34.74	36.56	40.96			37.87	39.34	42.43		

[1] Rail tariff rates include fuel surcharges and revisions for heavy axle railcars and shuttle trains. The rail tariff rate is a base price of rail freight rates, but during periods of high rail demand or car shortages, high auction and secondary market rates could exceed the base rail tariffs per car.

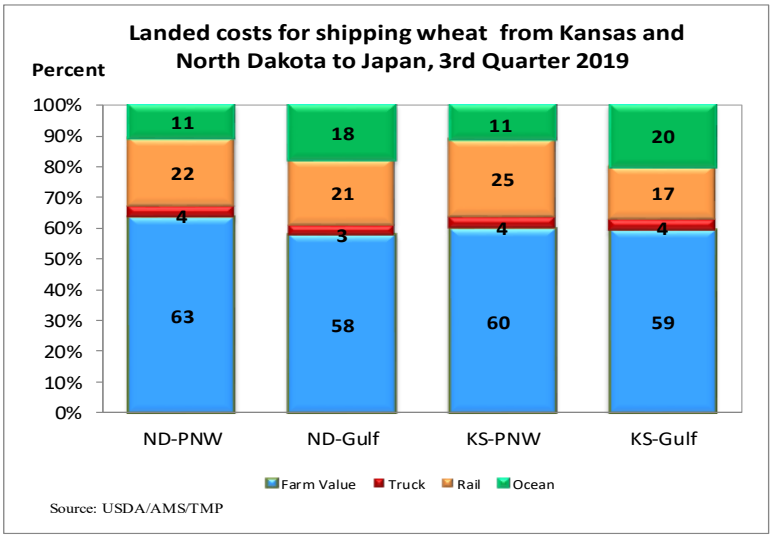
[2] USDA, National Agricultural Statistics Service is the source for wheat prices for North Dakota (mainly HRS) and Kansas (mainly HRW).

Source: USDA, Agricultural Marketing Service.

The total landed costs for shipping wheat to Japan ranged from $248 to $282 per metric ton (mt) and were below the previous quarter and last year for each route (tables 1 and 2). Quarter to quarter, Kansas and North Dakota total landed costs decreased for each route because of lower trucking rates and farm values. Year to year, total landed costs for these same routes were down as well because of lower rail rates and farm values.

Quarter to quarter, total landed costs for shipping wheat via PNW to Japan decreased 6 percent starting from Kansas and 4 percent from North Dakota. Year to year, landed costs for the same routes decreased 13 percent starting from Kansas and 9 percent from North Dakota.

Quarter to quarter, landed costs to ship wheat via the U.S. Gulf to Japan decreased 5 percent starting from Kansas and 3 percent from North Dakota. Year to year, landed costs for the same routes decreased 12 percent starting from Kansas and 7 percent from North Dakota mainly because of to lower trucking rates and farm values (see table 2).



Third-quarter farm values for Kansas wheat represented 60 percent of the landed cost for shipping via PNW, and 59 percent for shipping via the Gulf—down both quarter to quarter and year to year for each route (see tables and figure). Third-quarter farm values for North Dakota wheat represented 63 percent of the landed cost for shipping via PNW and 58 percent for shipping via the Gulf—likewise, down both quarter to quarter and year to year for each route (tables and figure).

Quarter to quarter, ocean freight rates for shipping wheat from PNW to Japan increased 18 percent and, from the U.S. Gulf to Japan, increased 17 percent. Year to year ocean freight rates in PNW and the U.S. Gulf increased 12 percent and 11 percent, respectively. Rates increased mainly because of strong bulk trade and high exports of iron ore from Brazil (October 31, 2019 *Grain Transportation Report*).

Quarter to quarter, rail rates for shipping wheat from Kansas to PNW increased 1 percent, but rates from North Dakota to PNW decreased 1 percent. Year to year, rail rates from Kansas to PNW decreased 1 percent, but increased more than 1 percent from North Dakota to PNW. Quarter to quarter, rail rates for shipping wheat both from Kansas and from North Dakota to the U.S. Gulf increased 1 percent. Year to year, rail rates for shipping wheat to the Gulf from Kansas increased 2 percent and increased over 1 percent from North Dakota (table 2*)*. The cost of moving wheat from each State by truck to a rail-served grain elevator decreased 16 percent from quarter to quarter and decreased 13 percent from year to year, partly because of lower third-quarter diesel prices.

According to the Federal Grain Inspection Service, total inspections of wheat destined for export to Japan reached .578 million metric tons (mmt) during the third quarter, down 25 percent from last year. Wheat inspections destined to Japan represented 9 percent of total third-quarter wheat inspections. During the third quarter, total inspections of U.S. wheat reached 6.5 mmt, up 20 percent from last year. For the 2019/20 marketing year, year-to-date cumulative (shipped) export sales of all wheat are up 26 percent from the past year (***GTR Table 12***). Johnny.Hill@usda.gov

Grain Transportation Indicators

Table 1

Grain transport cost indicators[1]

	Truck	Rail		Barge	Ocean	
For the week ending		Unit train	Shuttle		Gulf	Pacific
11/06/19	206	n/a	235	191	221	191
10/30/19	206	n/a	223	204	226	199

[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.
USDA, Agricultural Marketing Service.

Table 2

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

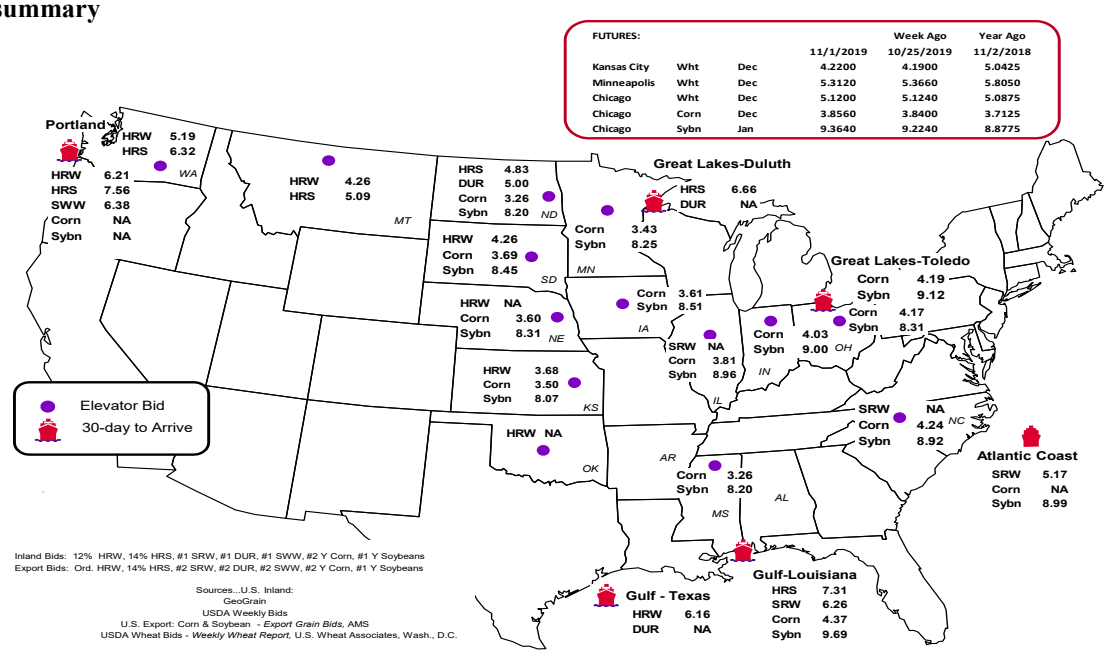
Commodity	Origin–destination	11/1/2019	10/25/2019
Corn	IL–Gulf	-0.56	-0.47
Corn	NE–Gulf	-0.77	-0.67
Soybean	IA–Gulf	-1.18	-1.22
HRW	KS–Gulf	-2.48	-2.45
HRS	ND–Portland	-2.73	-2.78

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]
10/30/2019[p]	550	462	5,618	552	7,182	10/26/2019	2,244
10/23/2019[r]	449	1,305	5,017	377	7,148	10/19/2019	2,546
2019 YTD[r]	37,291	47,172	212,102	15,149	311,714	2019 YTD	105,153
2018 YTD[r]	20,328	41,510	271,043	17,939	350,820	2018 YTD	105,911
2019 YTD as % of 2018 YTD	183	114	78	84	89	% change YTD	99
Last 4 weeks as % of 2018[2]	58	137	92	59	89	Last 4wks. % 2018	86
Last 4 weeks as % of 4-year avg.[2]	25	86	61	34	55	Last 4wks. % 4 yr.	110
Total 2018	22,118	46,532	310,449	21,432	400,531	Total 2018	129,116
Total 2017	28,796	75,543	287,267	21,312	412,918	Total 2017	119,661

[1]Data is incomplete as it is voluntarily provided.

[2] Compared with same 4-weeks in 2018 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.

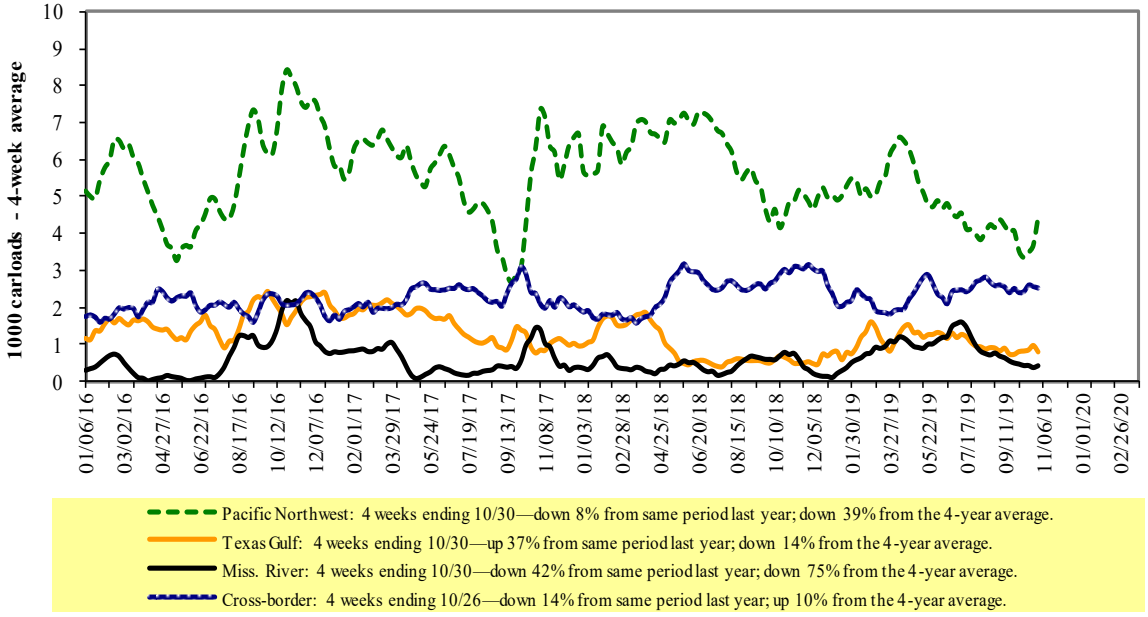
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available; wks. = weeks; avg. = average.

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	
10/26/2019	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	2,000	2,034	11,263	765	5,073	21,135	4,284	4,759
This week last year	2,317	2,384	12,872	1,109	4,605	23,287	4,952	5,266
2019 YTD	77,848	115,259	466,726	48,422	218,010	926,265	174,686	191,062
2018 YTD	82,960	109,887	530,702	40,577	223,853	987,979	171,859	201,373
2019 YTD as % of 2018 YTD	94	105	88	119	97	94	102	95
Last 4 weeks as % of 2018*	80	83	87	114	105	91	96	95
Last 4 weeks as % of 3-yr. avg.**	75	68	90	99	86	85	91	90
Total 2018	98,978	133,086	635,458	48,638	267,713	1,183,873	211,769	244,697

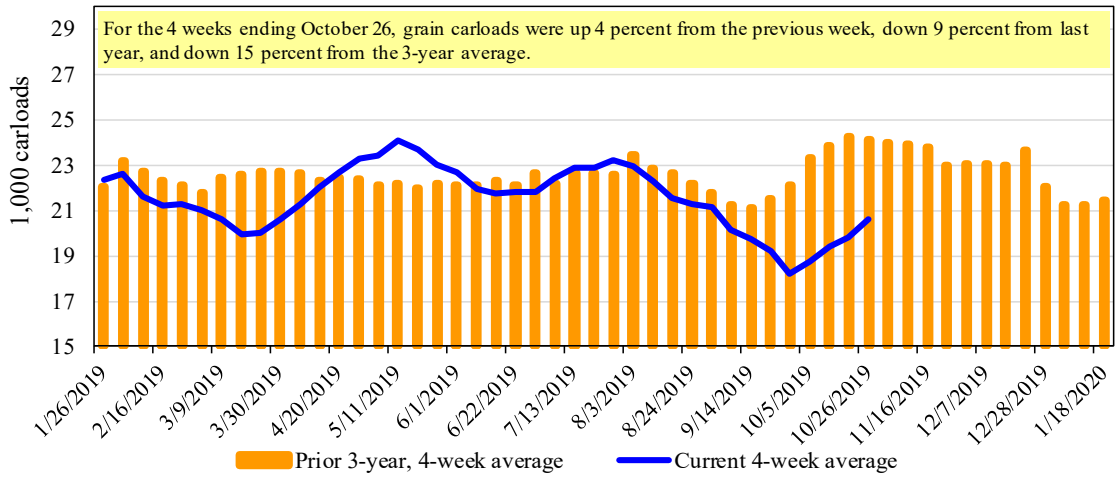
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

**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.

Source: Association of American Railroads.

Figure 3

Total weekly U.S. Class I railroad grain car loads



Source: Association of American Railroads.

Table 5

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

For the week ending:		Delivery period							
10/31/2019		Nov-19	Nov-18	Dec-19	Dec-18	Jan-20	Jan-19	Feb-20	Feb-19
BNSF[3]	COT grain units	1	0	0	0	0	0	0	0
	COT grain single-car	0	12	0	1	0	0	0	0
UP[4]	GCAS/Region 1	no offer	no offer	no bid	no offer	no offer	no offer	n/a	n/a
	GCAS/Region 2	no bid	no offer	no bid	no bid	no offer	no offer	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 = Certificate of Transportation; north grain and south grain bids were combined effective the week ending 6/24/06.

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

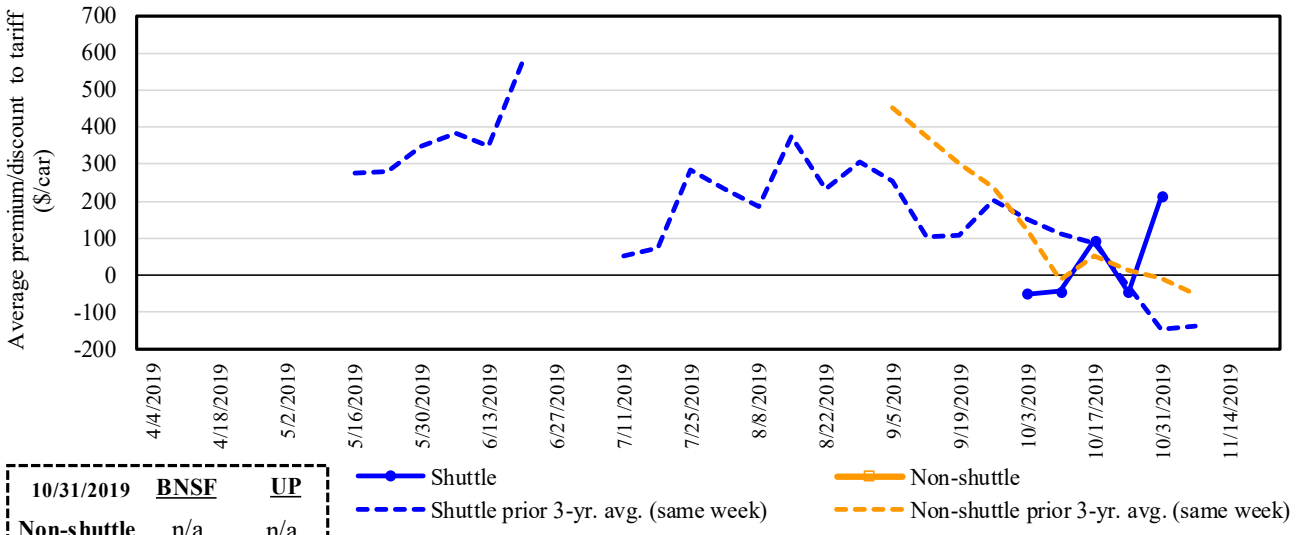
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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 November 2019, secondary market

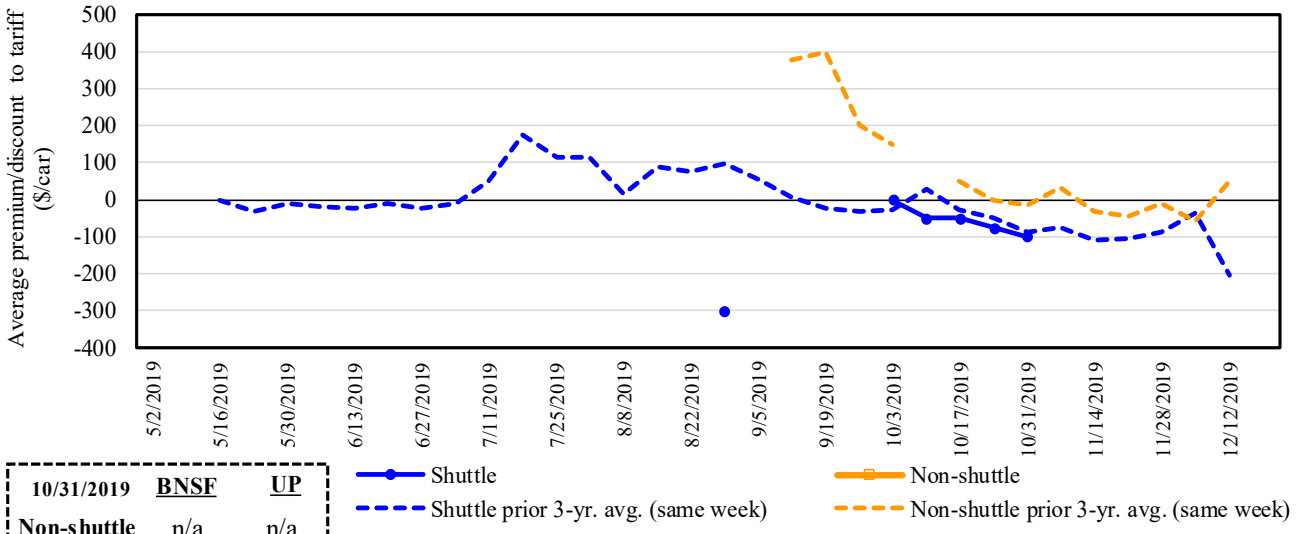


10/31/2019	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$213	n/a

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers rose $259 this week and are at the peak.

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

Figure 5
Bids/offers for railcars to be delivered in December 2019, secondary market



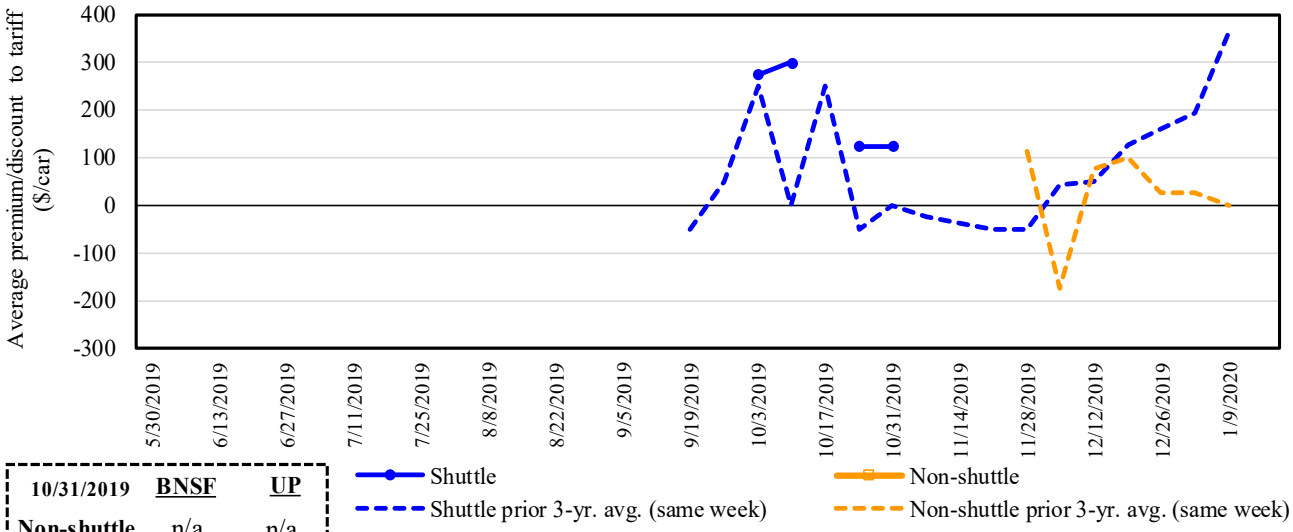
10/31/2019	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	n/a	-$100

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers fell $25 this week and are $100 below the peak.

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

Figure 6

Bids/offers for railcars to be delivered in January 2020, secondary market



10/31/2019	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$125	n/a

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers are unchanged this week and are $175 below the peak.

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

Table 6

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

	For the week ending: 10/31/2019	Delivery period					
		Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20
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 2018	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 2018	n/a	n/a	n/a	n/a	n/a	n/a
Shuttle	**BNSF-GF**	**213**	**n/a**	**125**	**50**	**n/a**	**n/a**
	Change from last week	257	n/a	0	(75)	n/a	n/a
	Change from same week 2018	413	n/a	n/a	n/a	n/a	n/a
	UP-Pool	**n/a**	**(100)**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	n/a	0	n/a	n/a	n/a	n/a
	Change from same week 2018	n/a	n/a	n/a	n/a	n/a	n/a

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

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

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 and—together with **fuel surcharges** and any **auction and secondary rail** values—constitute 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. High auction and secondary rail values, during times of high rail demand or short supply, can exceed the cost of the tariff rate plus fuel surcharge.

Table 7

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

November 2019	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	$96	$40.51	$1.10	-1
	Grand Forks, ND	Duluth-Superior, MN	$4,333	$0	$43.03	$1.17	2
	Wichita, KS	Los Angeles, CA	$7,240	$0	$71.90	$1.96	1
	Wichita, KS	New Orleans, LA	$4,525	$169	$46.61	$1.27	-1
	Sioux Falls, SD	Galveston-Houston, TX	$6,976	$0	$69.28	$1.89	1
	Northwest KS	Galveston-Houston, TX	$4,801	$185	$49.52	$1.35	-1
	Amarillo, TX	Los Angeles, CA	$5,121	$258	$53.41	$1.45	-1
Corn	Champaign-Urbana, IL	New Orleans, LA	$3,900	$191	$40.63	$1.03	-4
	Toledo, OH	Raleigh, NC	$6,816	$0	$67.69	$1.72	4
	Des Moines, IA	Davenport, IA	$2,415	$40	$24.38	$0.62	6
	Indianapolis, IN	Atlanta, GA	$5,818	$0	$57.78	$1.47	3
	Indianapolis, IN	Knoxville, TN	$4,874	$0	$48.40	$1.23	4
	Des Moines, IA	Little Rock, AR	$3,800	$119	$38.92	$0.99	-2
	Des Moines, IA	Los Angeles, CA	$5,680	$346	$59.84	$1.52	-2
Soybeans	Minneapolis, MN	New Orleans, LA	$3,631	$179	$37.83	$1.03	-13
	Toledo, OH	Huntsville, AL	$5,630	$0	$55.91	$1.52	3
	Indianapolis, IN	Raleigh, NC	$6,932	$0	$68.84	$1.87	3
	Indianapolis, IN	Huntsville, AL	$5,107	$0	$50.71	$1.38	3
	Champaign-Urbana, IL	New Orleans, LA	$4,645	$191	$48.03	$1.31	-3
Shuttle train							
Wheat	Great Falls, MT	Portland, OR	$4,143	$0	$41.14	$1.12	2
	Wichita, KS	Galveston-Houston, TX	$4,361	$0	$43.31	$1.18	2
	Chicago, IL	Albany, NY	$7,074	$0	$70.25	$1.91	20
	Grand Forks, ND	Portland, OR	$5,801	$0	$57.61	$1.57	1
	Grand Forks, ND	Galveston-Houston, TX	$6,121	$0	$60.78	$1.65	1
	Northwest KS	Portland, OR	$6,012	$304	$62.72	$1.71	0
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	$191	$39.83	$1.01	-1
	Lincoln, NE	Galveston-Houston, TX	$3,880	$0	$38.53	$0.98	0
	Des Moines, IA	Amarillo, TX	$4,220	$150	$43.39	$1.10	3
	Minneapolis, MN	Tacoma, WA	$5,180	$0	$51.44	$1.31	0
	Council Bluffs, IA	Stockton, CA	$5,000	$0	$49.65	$1.26	0
Soybeans	Sioux Falls, SD	Tacoma, WA	$5,850	$0	$58.09	$1.58	2
	Minneapolis, MN	Portland, OR	$5,900	$0	$58.59	$1.59	2
	Fargo, ND	Tacoma, WA	$5,750	$0	$57.10	$1.55	2
	Council Bluffs, IA	New Orleans, LA	$4,875	$220	$50.60	$1.38	1
	Toledo, OH	Huntsville, AL	$4,805	$0	$47.72	$1.30	4
	Grand Island, NE	Portland, OR	$5,860	$311	$61.28	$1.67	1

[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: November 2019							
Commodity	Origin state	Destination region	Tariff rate/car[1]	Fuel surcharge per car[2]	Tariff plus surcharge per: metric ton[3]	Tariff plus surcharge per: bushel[3]	Percent change[4] Y/Y
Wheat	MT	Chihuahua, CI	$7,509	$0	$76.72	$2.09	3
	OK	Cuautitlan, EM	$6,775	$132	$70.58	$1.92	0
	KS	Guadalajara, JA	$7,534	$594	$83.04	$2.26	4
	TX	Salinas Victoria, NL	$4,329	$80	$45.05	$1.22	-1
Corn	IA	Guadalajara, JA	$8,902	$509	$96.15	$2.44	6
	SD	Celaya, GJ	$8,140	$0	$83.17	$2.11	3
	NE	Queretaro, QA	$8,278	$271	$87.35	$2.22	0
	SD	Salinas Victoria, NL	$6,905	$0	$70.55	$1.79	0
	MO	Tlalnepantla, EM	$7,643	$264	$80.79	$2.05	0
	SD	Torreon, CU	$7,690	$0	$78.57	$1.99	3
Soybeans	MO	Bojay (Tula), HG	$8,547	$475	$92.18	$2.51	4
	NE	Guadalajara, JA	$9,172	$497	$98.78	$2.69	5
	IA	El Castillo, JA	$9,490	$0	$96.97	$2.64	4
	KS	Torreon, CU	$7,964	$344	$84.88	$2.31	4
Sorghum	NE	Celaya, GJ	$7,772	$450	$84.01	$2.13	4
	KS	Queretaro, QA	$8,108	$165	$84.53	$2.15	1
	NE	Salinas Victoria, NL	$6,713	$133	$69.94	$1.77	1
	NE	Torreon, CU	$7,157	$319	$76.39	$1.94	3

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

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

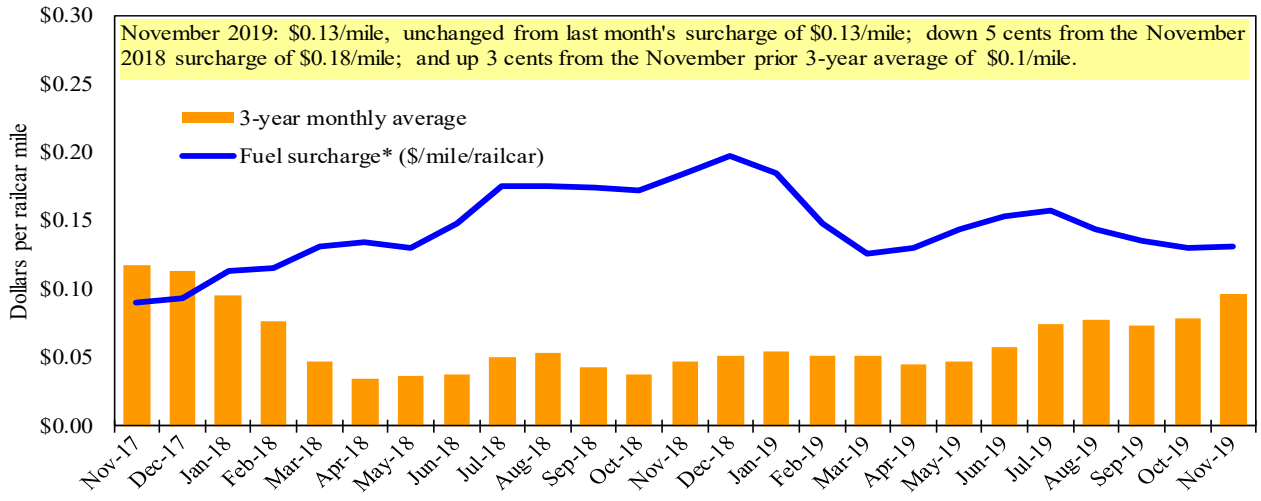
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

[4]Percentage change calculated using tariff rate plus fuel surchage; Y/Y = year to 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.

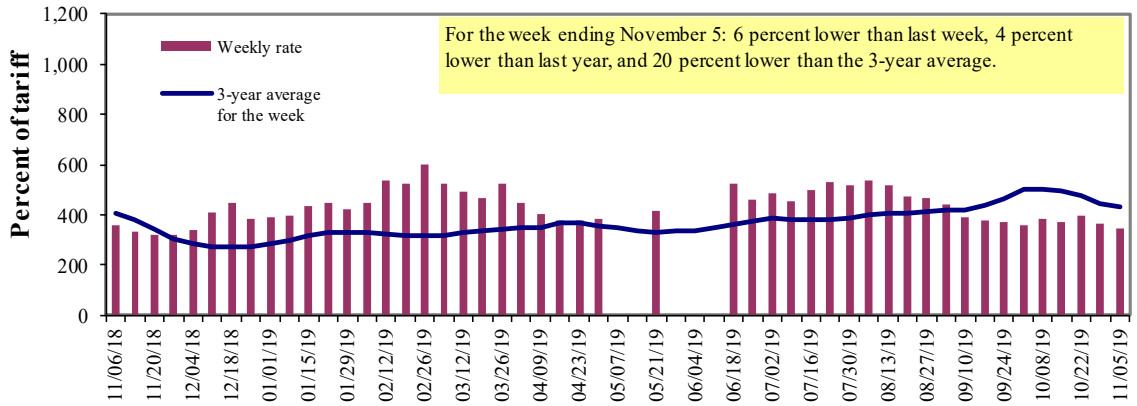
* Beginning January 2009, the Canadian Pacific fuel surcharge is computed by a monthly average of the bi-weekly fuel surcharge.

**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, Union Pacific Railroad, Kansas City Southern, Norfolk Southern Corp.

Barge Transportation

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



[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-week moving average of the 3-year average.

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]	11/5/2019	416	348	344	246	253	253	225
	10/29/2019	385	386	367	261	281	281	234
$/ton	11/5/2019	25.75	18.51	15.96	9.82	11.87	10.22	7.07
	10/29/2019	23.83	20.54	17.03	10.41	13.18	11.35	7.35
Current week % change from the same week:								
	Last year	4	-5	-4	-8	-12	-12	-10
	3-year avg. [2]	-13	-20	-20	-28	-38	-38	-25
Rate[1]	November	-	-	345	246	253	253	225
	January	-	-	365	246	253	253	225

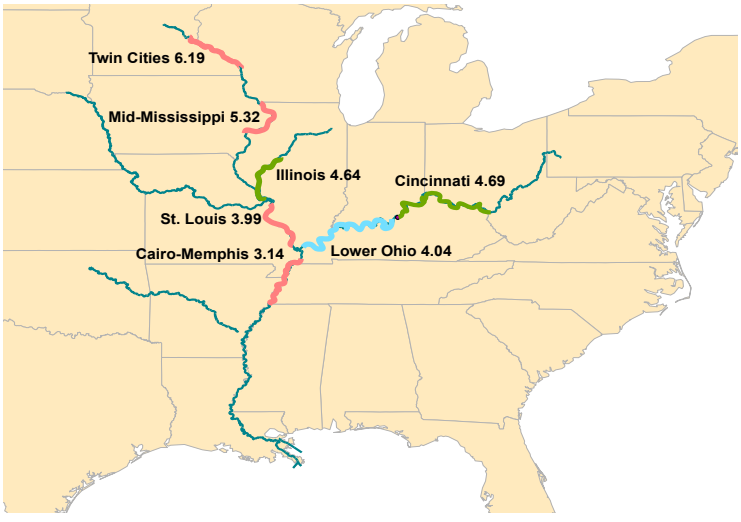
[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-week moving average; ton = 2,000 pounds; "-" not available due to closure

Source: USDA, Agricultural Marketing Service.

Figure 9
Benchmark tariff rates

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

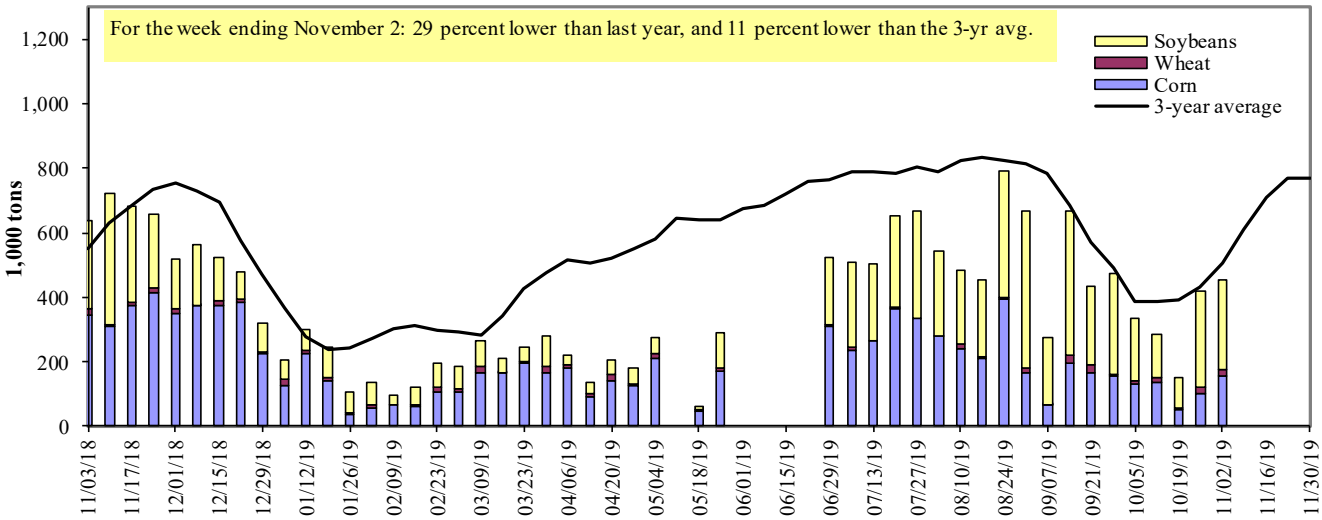
Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map.



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 11/02/2019	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	50	2	201	0	252
Winfield, MO (L25)	109	6	207	0	323
Alton, IL (L26)	134	11	274	0	418
Granite City, IL (L27)	158	16	280	0	453
Illinois River (LAGRANGE)	21	3	32	0	56
Ohio River (OLMSTED)	62	0	109	0	172
Arkansas River (L1)	0	6	32	0	38
Weekly total - 2019	220	21	421	0	662
Weekly total - 2018	441	33	384	0	858
2019 YTD[1]	10,352	1,432	10,829	136	22,750
2018 YTD[1]	19,977	1,465	10,200	98	31,739
2019 as % of 2018 YTD	52	98	106	139	72
Last 4 weeks as % of 2018[2]	64	217	158	16	105
Total 2018	23,349	1,674	12,819	133	37,975

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

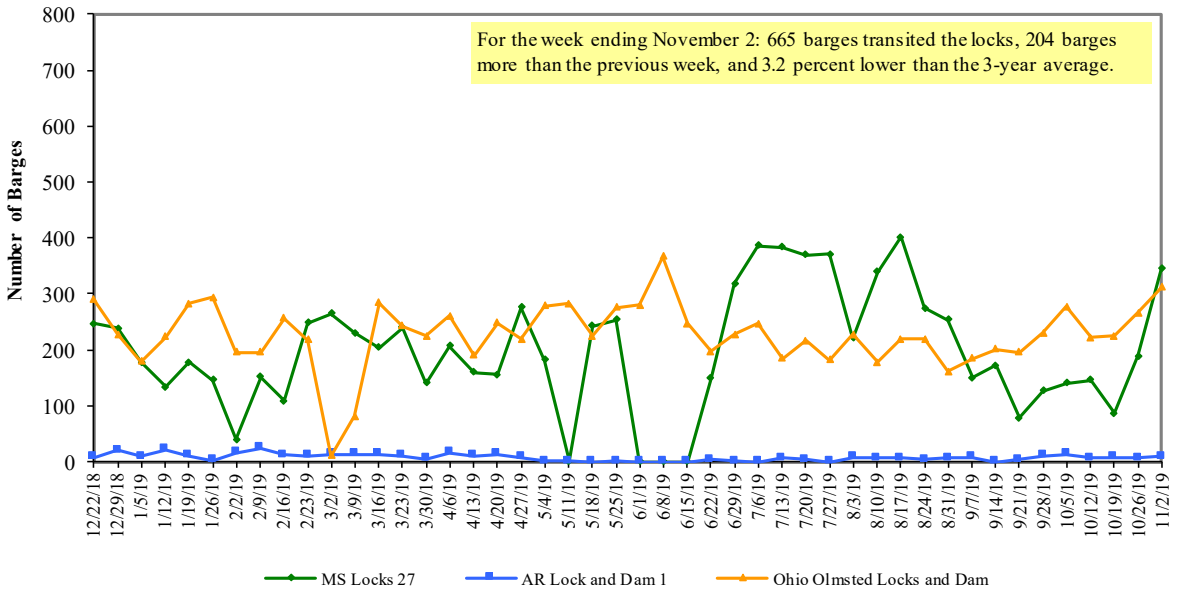
[2] As a percent of same period in 2018.

Note: 1. Total may not add exactly, due to rounding.
2. Starting from 11/24/2018, weekly movement through Ohio 52 is replaced by Olmsted.

Source: U.S. Army Corps of Engineers.

Figure 11

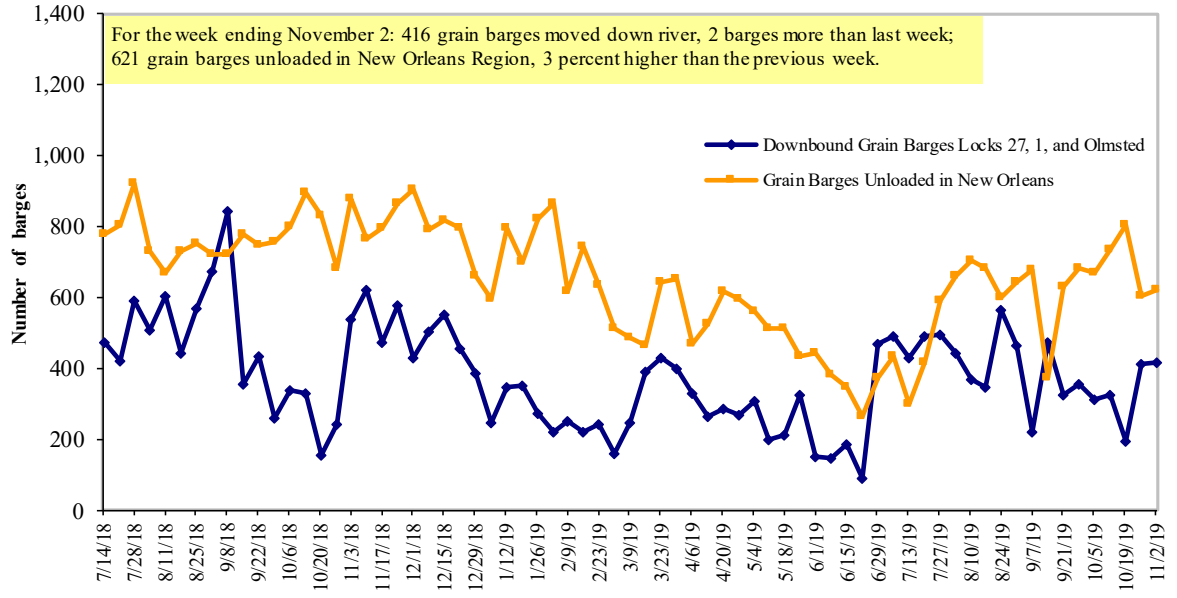
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



Source: U.S. Army Corps of Engineers.

Figure 12

Grain barges for export in New Orleans region



Source: U.S. Army Corps of Engineers and USDA, Agricultural Market 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 11/4/2019 (U.S. $/gallon)

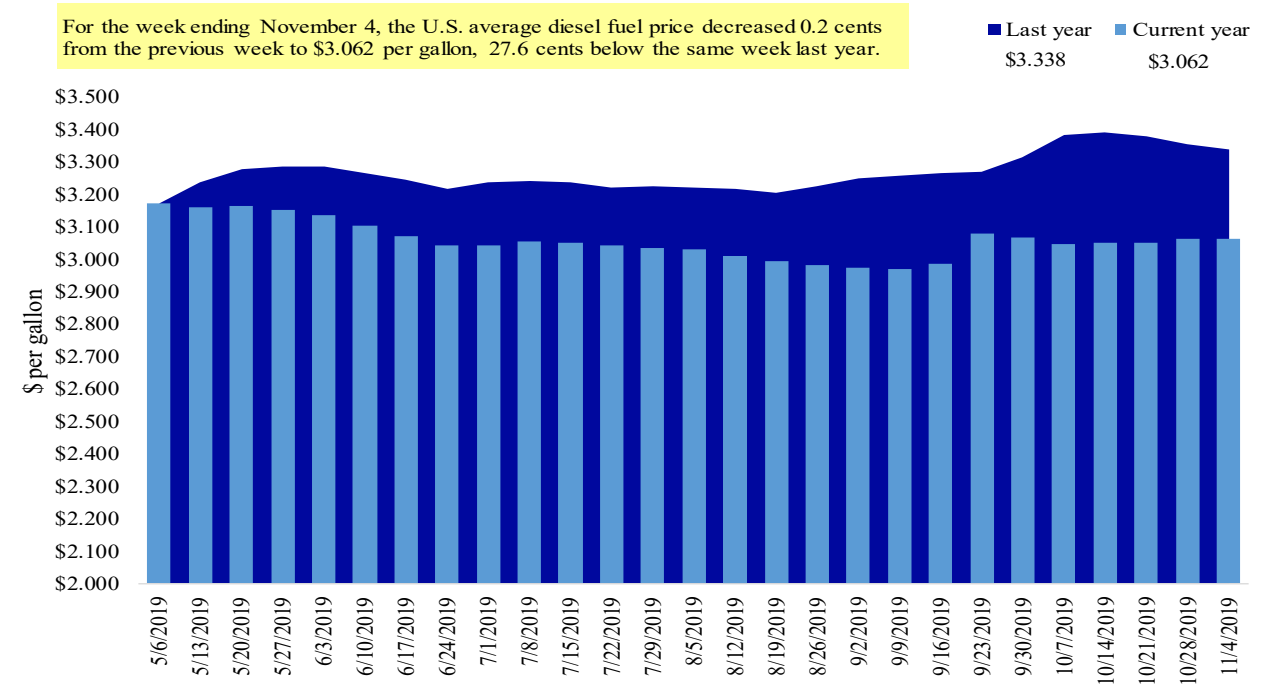
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.041	-0.015	-0.288
	New England	3.034	0.006	-0.328
	Central Atlantic	3.244	-0.002	-0.254
	Lower Atlantic	2.905	-0.027	-0.300
II	Midwest	2.955	-0.008	-0.331
III	Gulf Coast	2.795	-0.011	-0.311
IV	Rocky Mountain	3.166	0.084	-0.232
V	West Coast	3.746	0.022	-0.087
	West Coast less California	3.413	0.034	-0.125
	California	4.011	0.013	-0.057
Total	U.S.	3.062	-0.002	-0.276

[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]									
10/24/2019	1,191	573	1,234	943	279	4,221	7,784	11,317	23,321
This week year ago	1,407	584	1,726	995	121	4,833	12,587	13,964	31,383
Cumulative exports-marketing year[2]									
2019/20 YTD	4,196	1,249	2,759	1,837	318	10,357	3,621	7,955	21,933
2018/19 YTD	2,361	980	2,455	2,212	243	8,252	9,246	7,385	24,883
YTD 2019/20 as % of 2018/19	178	127	112	83	131	126	39	108	88
Last 4 wks as % of same period 2018/19	90	101	73	99	180	89	62	87	77
2018/19 Total	8,591	3,204	6,776	5,164	479	24,214	48,924	46,189	119,327
2017/18 Total	9,150	2,343	5,689	4,854	384	22,419	57,209	56,214	135,842

[1] Current unshipped (outstanding) export sales to date

[2] Shipped export sales to date; new marketing year now in effect for wheat, corn, and soybeans.

Note: Marketing Year: wheat = 6/01-5/31, corn and soybeans = 9/01-8/31. YTD = year-to-date; wks = weeks; HRW= hard red winter; srw= soft red winter; HRS= hard red spring; SWW= soft white wheat; DUR= durum.

Source: USDA, Foreign Agricultural Service.

Table 13

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

For the week ending 10/24/2019	Total commitments[2] 2019/20 current MY	Total commitments[2] 2018/19 last MY	% change current MY from last MY	Exports[3] 3-yr. avg. 2016-18
	- 1,000 mt -			
Mexico	6,110	7,093	(14)	14,659
Japan	1,597	3,380	(53)	11,955
Korea	71	1,813	(96)	4,977
Colombia	580	1,076	(46)	4,692
Peru	0	817	(100)	2,808
Top 5 Importers	**8,358**	**14,179**	**(41)**	**39,091**
Total U.S. corn export sales	**11,405**	**21,832**	**(48)**	**54,024**
% of projected exports	24%	42%		
Change from prior week[2]	**549**	**395**		
Top 5 importers' share of U.S. corn export sales	73%	65%		72%
USDA forecast, October 2019	**48,346**	**52,545**	**(8)**	
Corn use for ethanol USDA forecast, October 2019	**137,160**	**136,551**	**0**	

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

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

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

Note: (n) indicates negative number; mt = metric ton

Source: USDA, Foreign Agricultural Service.

Table 14

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

For the week ending 10/24/2019	Total commitments[2] 2019/20 current MY	Total commitments[2] 2018/19 last MY	% change current MY from last MY	Exports[3] 3-yr. avg. 2016-18
		- 1,000 mt -		- 1,000 mt -
China	6,190	964	542	25,733
Mexico	2,498	3,265	(23)	4,271
Indonesia	504	694	(27)	2,386
Japan	781	744	5	2,243
Egypt	739	650	14	1,983
Top 5 importers	**10,711**	**6,316**	**70**	**36,616**
Total U.S. soybean export sales	**19,271**	**21,349**	**(10)**	**53,746**
% of projected exports	40%	45%		
change from prior week[2]	**944**	**396**		
Top 5 importers' share of U.S. soybean export sales	56%	30%		**68%**
USDA forecast, October 2019	**48,365**	**47,629**	**102**	

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

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

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

Note: (n) indicates negative number; mt = metric ton

Source: USDA, Foreign Agriculltural Service.

Table 15

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

For the week ending 10/24/2019	Total commitments[2] 2019/20 current MY	Total commitments[2] 2018/19 last MY	% change current MY from last MY	Exports[3] 3-yr. avg. 2016-18
	- 1,000 mt -			- 1,000 mt -
Philippines	1,727	1,824	(5)	3,047
Mexico	2,216	1,522	46	3,034
Japan	1,517	1,609	(6)	2,695
Nigeria	915	583	57	1,564
Indonesia	357	335	7	1,381
Korea	830	855	(3)	1,355
Taiwan	730	569	28	1,164
Egypt	101	50	102	821
Thailand	418	538	(22)	747
Iraq	262	362	(27)	574
Top 10 importers	**9,072**	**8,246**	10	**16,382**
Total U.S. wheat export sales	**14,578**	**13,084**	**11**	**24,388**
% of projected exports	56%	51%		
change from prior week[2]	**494**	**583**		
Top 10 importers' share of U.S. wheat export sales	62%	63%		67%
USDA forecast, October 2019	**25,886**	**25,504**	**1**	

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

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

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

(n) indicates negative number; mt = metric ton.

Source: USDA, Foreign Agriculltural Service.

Table 16

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

Port regions	For the week ending 10/31/19	Previous week*	Current week as % of previous	2019 YTD*	2018 YTD*	2019 YTD as % of 2018 YTD	Last 4-weeks as % of: Last year	Last 4-weeks as % of: Prior 3-yr. avg.	2018 total*
Pacific Northwest									
Wheat	189	324	58	11,805	11,005	107	125	174	13,315
Corn	0	0	n/a	6,922	17,541	39	0	1	20,024
Soybeans	498	421	118	8,887	7,240	123	149	47	7,719
Total	**687**	**745**	**92**	**27,614**	**35,785**	**77**	**94**	**68**	**41,058**
Mississippi Gulf									
Wheat	12	89	13	4,007	3,367	119	56	71	3,896
Corn	119	262	46	18,178	29,611	61	49	57	33,735
Soybeans	861	1,025	84	24,077	22,019	109	113	80	28,124
Total	**992**	**1,377**	**72**	**46,262**	**54,997**	**84**	**84**	**73**	**65,755**
Texas Gulf									
Wheat	51	118	43	5,568	2,545	219	180	107	3,198
Corn	0	2	0	579	665	87	7	6	730
Soybeans	0	0	n/a	2	69	2	n/a	0	69
Total	**51**	**121**	**42**	**6,149**	**3,278**	**188**	**153**	**61**	**3,997**
Interior									
Wheat	20	23	86	1,631	1,390	117	118	118	1,614
Corn	151	108	140	6,406	7,554	85	73	88	8,650
Soybeans	152	210	72	5,923	5,825	102	84	85	6,729
Total	**323**	**342**	**95**	**13,959**	**14,770**	**95**	**81**	**89**	**16,993**
Great Lakes									
Wheat	38	32	118	974	698	139	292	175	894
Corn	0	11	0	11	404	3	19	38	404
Soybeans	0	0	n/a	473	899	53	0	0	1,192
Total	**38**	**44**	**87**	**1,459**	**2,001**	**73**	**32**	**30**	**2,491**
Atlantic									
Wheat	0	0	n/a	37	69	54	n/a	0	69
Corn	0	0	n/a	99	124	80	10	3	138
Soybeans	48	50	96	1,137	1,596	71	137	56	2,047
Total	**48**	**50**	**96**	**1,274**	**1,789**	**71**	**121**	**46**	**2,253**
U.S. total from ports*									
Wheat	309	587	53	24,023	19,074	126	121	135	22,986
Corn	271	384	70	32,195	55,899	58	42	56	63,682
Soybeans	1,558	1,706	91	40,499	37,648	108	109	65	45,879
Total	**2,138**	**2,678**	**80**	**96,717**	**112,621**	**86**	**86**	**71**	**132,547**

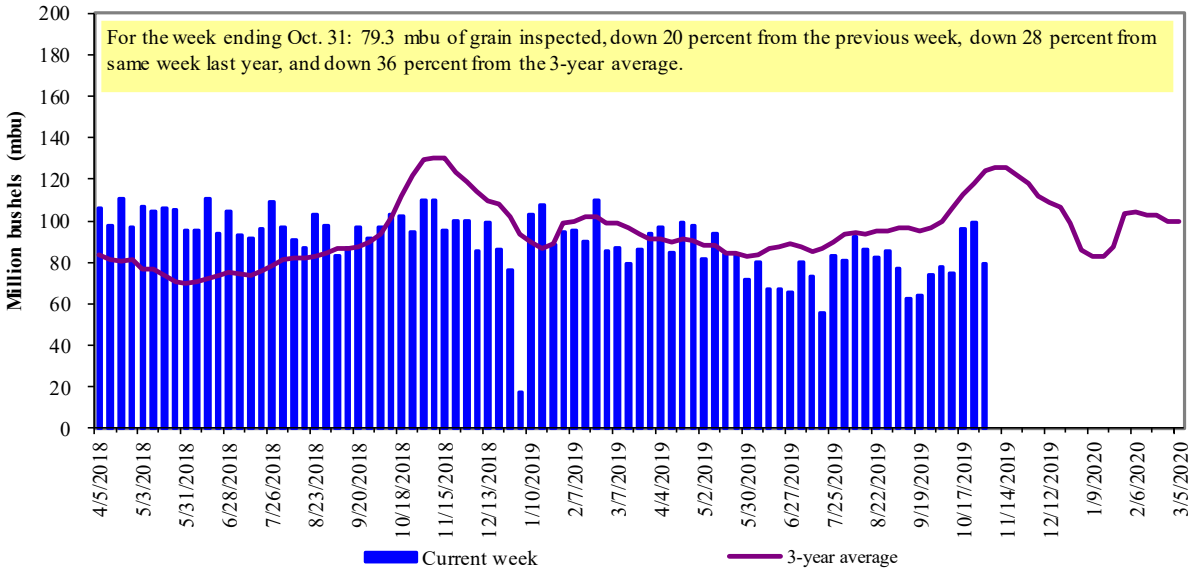
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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 53 percent of the U.S. export grain shipments departed through the U.S. Gulf region in 2018.

Figure 14

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

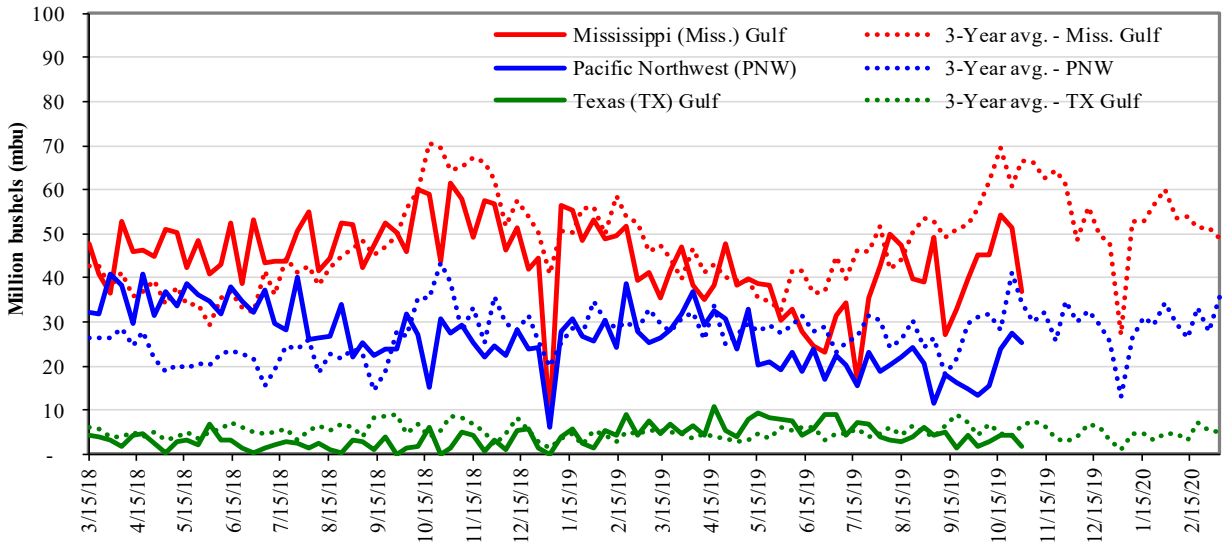


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

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



Week ending 10/31/19 inspections (mbu):	
MS Gulf:	36.8
PNW:	25.2
TX Gulf:	1.9

Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last wk:	down 28	down 58	down 31	down 8
Last Year (same wk):	down 40	up 52	down 39	down 8
3-yr avg. (4-wk. mov. Avg):	down 43	down 67	down 45	down 26

Source: USDA, Federal Grain Inspection Service.

Table 17

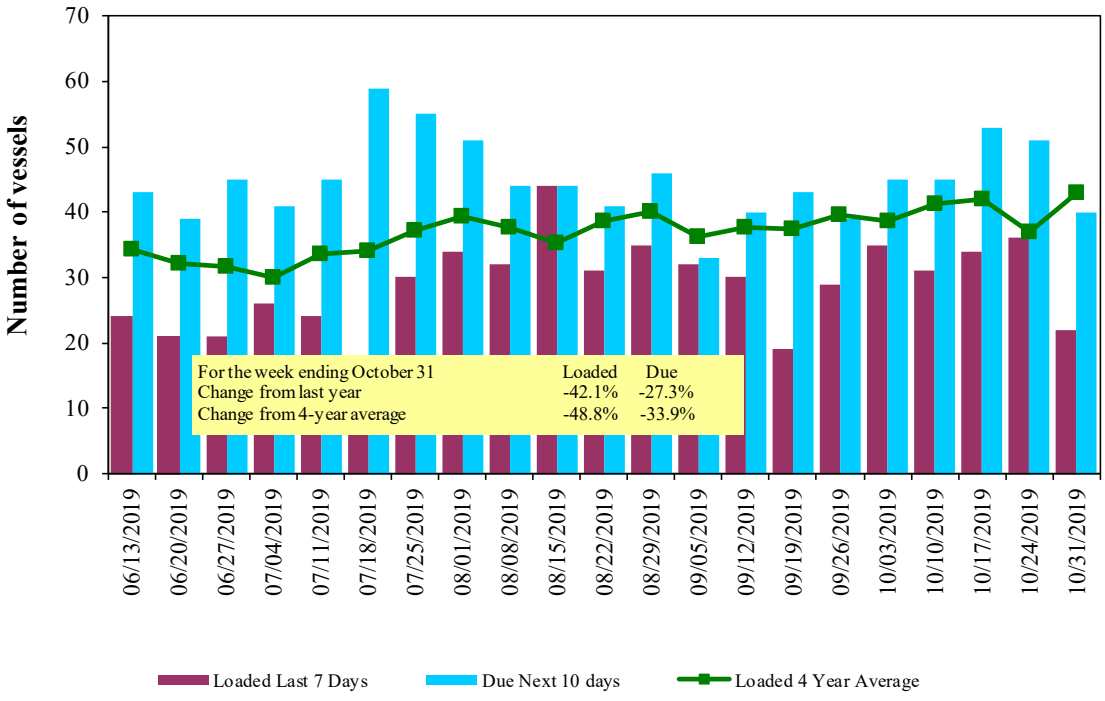
Weekly port region grain ocean vessel activity (number of vessels)

	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
10/31/2019	42	22	40	13
10/24/2019	27	36	51	18
2018 range	(23...88)	(24...41)	(38...67)	(4...30)
2018 average	40	34	54	17

Source: USDA, Agricultural Marketing Service.

Figure 16

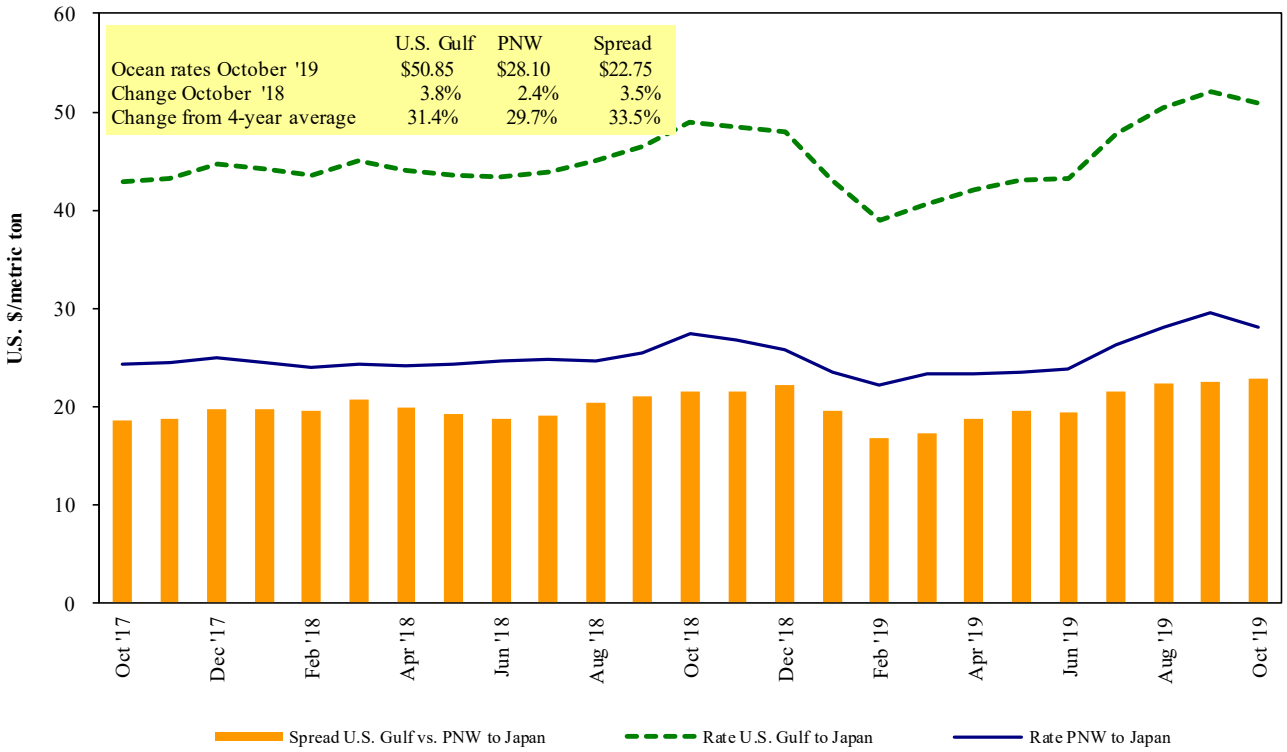
U.S. Gulf[1] vessel loading activity



[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 11/02/2019

Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US$/metric ton)
U.S. Gulf	Bangladesh	Wheat	Dec 10/20	48,990	79.92*
U.S. Gulf	China	Heavy Grain	Nov 15/18	66,000	49.00
U.S. Gulf	Pt Sudan	Sorghum	Sep 20/30	24,960	58.15*
U.S. Gulf	Somaliland	Sorghum	Sep 20/30	32,240	61.75*
PNW	Bangladesh	Wheat	Dec 10/20	23,080	74.44*
PNW	Philippines	Soybean Meal	Oct 31/31	15,390	49.82*
PNW	Vietnam	Soybean Meal	Oct 21/31	3,200	49.82*
PNW	Yemen	Wheat	Sep 5/15	35,380	59.59*
PNW	Yemen	Wheat	Sep 20/30	35,000	62.19*
Brazil	China	Heavy Grain	Oct 1/10	65,000	32.00
Ukraine	Egypt Med	Heavy Grain	Oct 19/23	60,000	13.50

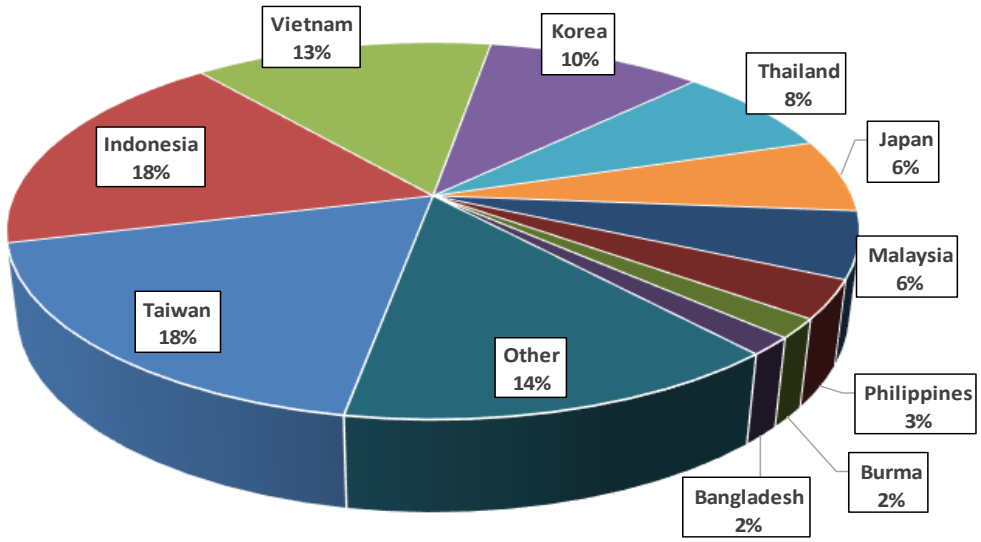
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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

Source: Maritime Research, Inc.

In 2018, containers were used to transport 8 percent of total U.S. waterborne grain exports. Approximately 55 percent of U.S. waterborne grain exports in 2018 went to Asia, of which 13 percent were moved in containers. Approximately 94 percent of U.S. waterborne containerized grain exports were destined for Asia.

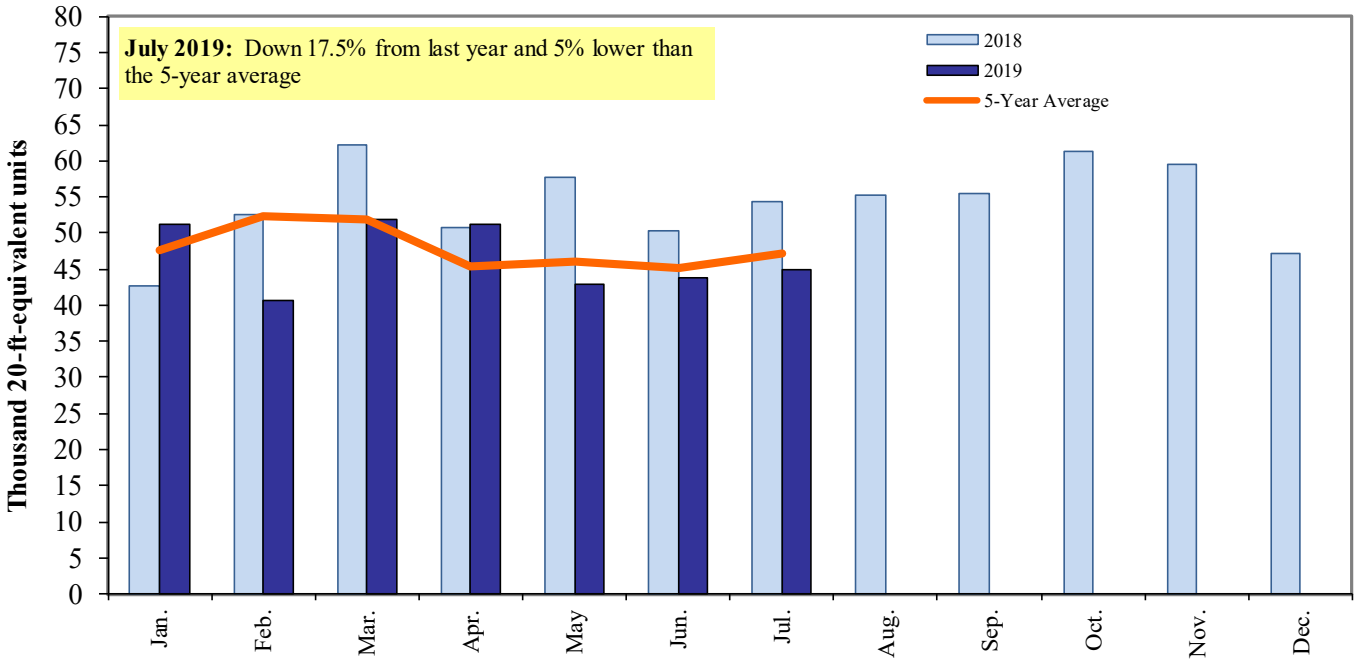
Figure 18
Top 10 destination markets for U.S. containerized grain exports, Jan-Jul 2019



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, and 120810.

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, 120100, 120810, 230210, 230310, 230330, and 230990.

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

Contacts and Links

Coordinators		
Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
Maria Williams	maria.williams@usda.gov	(202) 690 - 4430
Grain Transportation Indicators		
Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
Rail Transportation		
Johnny Hill	johnny.hill@usda.gov	(202) 690 - 3295
Jesse Gastelle	jesse.gastelle@usda.gov	(202) 690 - 1144
Peter Caffarelli	petera.caffarelli@usda.gov	(202) 690 - 3244
Barge Transportation		
April Taylor	april.taylor@usda.gov	(202) 720 - 7880
Kuo-Liang (Matt) Chang	matt.chang@usda.gov	(202) 720 - 0299
Kelly P. Nelson	kelly.nelson@usda.gov	(202) 690 - 0992
Truck Transportation		
April Taylor	april.taylor@usda.gov	(202) 720 - 7880
Grain Exports		
Johnny Hill	johnny.hill@usda.gov	(202) 690 - 3295
Ocean Transportation		
Surajudeen (Deen) Olowolayemo (Freight rates and vessels)	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
April Taylor (Container movements)	april.taylor@usda.gov	(202) 720 - 7880
Editor		
Maria Williams	maria.williams@usda.gov	(202) 690-4430

Subscription Information: Send relevant information to **GTRContactUs@usda.gov** for an electronic copy *(printed copies are also available upon request)*.

Preferred citation: U.S. Dept. of Agriculture, Agricultural Marketing Service. *Grain Transportation Report.* November 6, 2019. Web: **http://dx.doi.org/10.9752/TS056.11-07-2019**