USDA United States Department of Agriculture

Grain Transportation Report

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

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November 21, 2019

Contents

The next release is November 27, 2019

WEEKLY HIGHLIGHTS

Total Inspections Continue to Increase

For the week ending November 14, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions reached 2.71 million metric tons (mmt), increasing for the second consecutive week. Total inspections were up 6 percent from the previous week, up 6 percent from last year, but down 20 percent from the 3-year average. From the past week, corn rose 10 percent, soybeans rose 14 percent, and wheat inspections fell 17 percent. Weekly inspections increased 7 percent from the previous week in the Pacific Northwest (PNW) and 13 percent in the Mississippi Gulf. Despite the increases in weekly inspections, total year-to-date inspections of grain are still below last year by 14 percent.

EIA Expects Average Crude Oil Prices in 2020 to Fall Below 2019

In its most recent Short-Term Energy Outlook, the Department of Energy's Energy Information Administration (EIA) reports crude oil prices were down $3 per barrel in October from September and down $21 per barrel from the previous year. "EIA expects crude oil prices will be lower on average in 2020 than in 2019 because of forecast rising global oil inventories, particularly in the first half of next year." Lower crude oil prices lay the foundation for stable diesel fuel prices for agricultural exporters next year. Fuel surcharges for truck, rail, and barge transportation are often based on average diesel fuel prices. See more at www.eia.gov/steo.

Waterborne Grain Volumes Increase on the Mississippi

For the week ending November 16, grain volumes transiting the locks on the Mississippi River were the second-highest in 2019. Last week, 888,976 tons of corn, wheat, soybeans, and other grains passed through Ohio Olmsted Lock and Dam, Lock and Dam 27 on the Mississippi, and Lock and Dam 1 on the Arkansas River, which nearly matched the previous high for 2019 of 890,199, which occurred in the week ending August 24. **In several States** critical to grain production, harvest progress drew closer to the 5-year averages after having lagged far behind the averages for most of the 2019 harvest. Still, many States remain behind their average progress. Greater supplies of grain later in the year due to the delayed harvest are reflected in **slightly above-average barge rates** in November and December at ports in the upper- and mid- Mississippi areas.

Snapshots by Sector

Export Sales

For the week ending November 7, **unshipped balances** of wheat, corn, and soybeans totaled 23.4 mmt. This represents a 20-percent decrease in outstanding sales, compared to the same time last year. Net **corn export sales** reached .581 mmt, up 19 percent from the past week. Net **soybean export sales** were 1.25 mmt, down 29 percent from the previous week. Net weekly **wheat export sales** reached .239 mmt, down 34 percent from the previous week.

Rail

U.S. Class I railroads originated 21,855 **grain carloads** during the week ending November 9. This is unchanged from the previous week, 2 percent more than last year, and 8 percent lower than the 3-year average.

Average November shuttle **secondary railcar** bids/offers (per car) were $113 below tariff for the week ending November 14. This is $181 less than last week. There were no shuttle bids/offers this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending November 16, **barge grain movements** totaled 888,976 tons. This was a 19-percent increase from the previous week and 21 percent more than the same period last year.

For the week ending November 16, 562 grain barges **moved down river**—94 more barges than the previous week. There were 734 grain barges **unloaded in New Orleans**, 6 percent less than the previous week.

Ocean

For the week ending November 14, 31 **oceangoing grain vessels** were loaded in the Gulf—21 percent less than the same period last year. Within the next 10 days (starting November 15), 47 vessels were expected to be loaded—20 percent fewer than the same period last year. As of November 14, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $46.50. This was 4 percent less than the previous week. The rate from PNW to Japan was $24.75 per mt, 6 percent less than the previous week.

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Web: http://dx.doi.org/10.9752/TS056.11-21-2019

Grain Transportation Costs to Mexico Increased During Third Quarter 2019

During third quarter 2019, increased barge, rail, and ocean rates pushed up the transportation costs of shipping grain (corn, soybeans and wheat) from the United States to Mexico by water and land routes. Quarter-to-quarter landed costs of corn and soybeans shipped to Mexico likewise increased (see table). However, the landed costs for wheat declined. Quarter-to-quarter transportation costs for shipping waterborne corn, soybeans, and wheat each increased 4 percent. Meanwhile, costs of transporting via the land route increased 4 percent for corn, 3 percent for soybeans, and 4 percent for wheat.

Quarterly costs of transporting United States grain to Veracruz and Guadalajara, Mexico

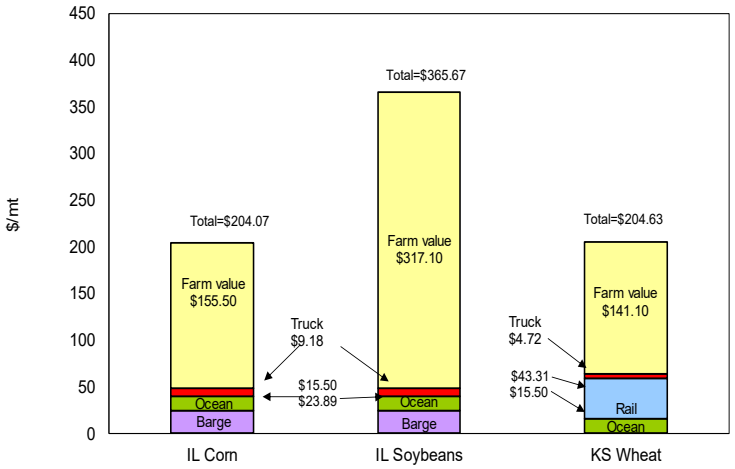
	Water route (to Veracruz) $/metric ton					Land route (to Guadalajara) $/metric ton				
	2018 3rd qtr.	2019 2nd qtr.	2019 3rd qtr.	Percent change Yr. to yr.	Percent change Qtr. to qtr.	2018 3rd qtr.	2019 2nd qtr.	2019 3rd qtr.	Percent change Yr. to yr.	Percent change Qtr. to qtr.
Corn										
Origin			**IL**					**IA**		
Truck	10.54	10.98	9.18	-12.9	-16.4	5.12	4.38	4.72	-7.8	7.8
Rail [1]						88.41	91.96	95.44	8.0	3.8
Barge	25.32	21.74	23.89	-5.6	9.9					
Ocean[2]	14.68	14.01	15.50	5.6	10.6					
Total transportation cost	50.54	46.73	48.57	-3.9	3.9	93.53	96.34	100.16	7.1	4.0
Farm value[3]	133.98	145.79	155.50	16.1	6.7	130.83	145.01	154.06	17.8	6.2
Landed cost[4]	184.52	192.52	204.07	10.6	6.0	224.36	241.35	254.22	13.3	5.3
Transport % of landed cost	27	24	24			42	40	39		
Soybeans										
Origin			**IL**					**NE**		
Truck	10.54	10.98	9.18	-12.9	-16.4	5.12	4.38	4.72	-7.8	7.8
Rail						92.60	95.11	97.91	5.7	2.9
Barge	25.32	21.74	23.89	-5.6	9.9					
Ocean	14.68	14.01	15.50	5.6	10.6					
Total transportation cost	50.54	46.73	48.57	-3.9	3.9	97.72	99.49	102.63	5.0	3.2
Farm value	330.94	308.77	317.10	-4.2	2.7	317.83	291.26	293.83	-7.6	0.9
Landed cost	381.48	355.50	365.67	-4.1	2.9	415.55	390.75	396.46	-4.6	1.5
Transport % of landed cost	13	13	13			24	25	26		
Wheat										
Origin			**KS**					**KS**		
Truck	5.12	4.38	4.72	-7.8	7.8	5.12	4.38	4.72	-7.8	7.8
Rail	42.66	42.88	43.31	1.5	1.0	79.08	80.31	83.12	5.1	3.5
Ocean	14.68	14.01	15.50	5.6	10.6					
Total transportation cost	62.46	61.27	63.53	1.7	3.7	84.20	84.69	87.84	4.3	3.7
Farm value	184.94	167.67	141.10	-23.7	-15.8	184.94	167.67	141.10	-23.7	-15.8
Landed cost	247.40	228.94	204.63	-17.3	-10.6	269.14	252.36	228.94	-14.9	-9.3
Transport % of landed cost	25	27	31			31	34	38		

[1]Rail rates include U.S. and Mexico portions of the movement. Mexico rail rates are estimated based on actual quoted market rates. BNSF and Union Pacific quoted rail tariff rates are through rates for shuttle trains. Rail rates include fuel surcharges, but do not include the cost of purchasing empty rail cars in the secondary market, which could exceed the rail tariff rate plus fuel surcharge shown in the table.
[2]Source for ocean freight rates: O'Neil Commodity Consulting.
[3]Source for farm values: USDA, National Agricultural Statistics Service.
[4]Landed cost is total transportation cost plus farm value.
Note: Total may not add exactly because of rounding.
Source: Compiled by the USDA, Agricultural Marketing Service.

Higher barge and ocean rates elevated the transportation costs for waterborne corn and soybeans during the quarter. Better navigation conditions on the river system, which raised the demand for barge services, likewise pushed up barge rates. During the previous quarters, persistent flooding and navigation disruptions led to reduced demand for barge services as the upper section of the Mississippi River was closed for navigation. This may have increased the supply of barges on the lower section of the river, causing barge rates there to decline (see August 15, 2019 *Grain Transportation Report* (*GTR*)). Ocean freight rates for shipping bulk commodities, including grain, increased during the quarter because of firm trade of bulk items such as coal and iron ore (see October 31, 2019 *GTR*).

From the third quarter of 2018 to the third quarter of 2019 (year to year), transportation costs increased for corn, soybeans, and wheat transported via the land route. Although year-to-year transportation costs also rose for waterborne wheat, they dropped for waterborne corn and soybeans. This decrease for corn and soybeans stemmed from a decline in truck and barge rates that more than offset an increase in ocean rates.

Figure 1. Water route shipment costs ($/mt) to Veracruz, Mexico

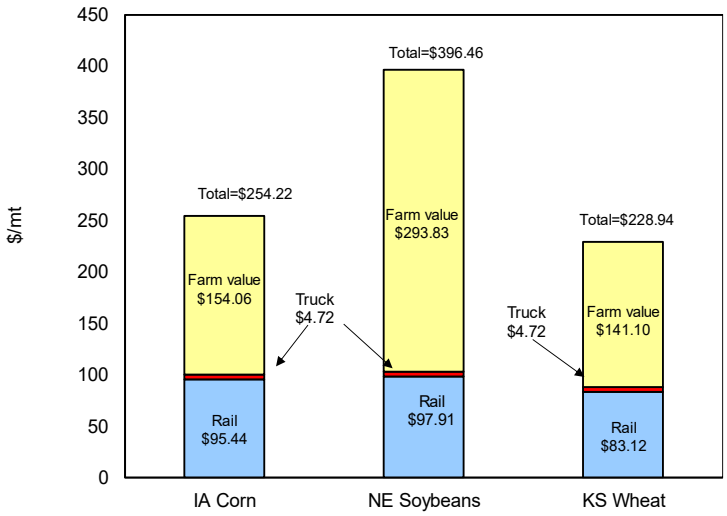


Source: USDA, Agricultural Marketing Service.

Quarter-to-quarter landed costs for corn and soybeans also rose (over both water and land routes), as a result of higher transportation costs and farm values during the third quarter. In contrast, wheat landed costs fell in response to lower farm values, which declined from the second quarter.

Year-to-year landed costs increased for corn and declined for both soybeans and wheat. The landed costs for the water route ranged from $204 to $366 per metric ton (mt) (see table and fig. 1). For the land route, landed costs ranged from $229 to $396 per mt (see table and fig. 2). The share of landed costs comprising transportation ranged from 13 to 31 percent for the water route and 26 to 39 percent for the land route (see table).

Figure 2. Land route shipment costs ($/mt) to Guadalajara, Mexico



Source: USDA, Agricultural Marketing Service.

Both quarter to quarter and year to year, Mexico imported more soybeans and wheat from the United States (USDA's grain inspection data). During the third quarter, 1.3 million metric tons (mmt) of soybeans and 0.94 mmt of wheat were inspected for export to Mexico. In comparison 1.03 mmt and 0.87 mmt of soybeans and wheat were exported during second quarter 2019. Third quarter 2019 numbers were also up from a year ago when 1.22 mmt of soybeans and 0.73 mmt of wheat were exported. On the other hand, both quarter to quarter and year to year, corn inspected for export declined slightly. During the third quarter, 3.12 mmt of corn were exported compared to 3.39 mmt in the previous quarter and 3.93 mmt in the previous year.

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Grain Transportation Indicators

Table 1

Grain transport cost indicators[1]

	Truck	Rail		Barge	Ocean	
For the week ending		Unit train	Shuttle		Gulf	Pacific
11/20/19	206	n/a	225	220	208	176
11/13/19	206	n/a	228	224	217	186

[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); and 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	11/15/2019	11/8/2019
Corn	IL–Gulf	-0.56	-0.51
Corn	NE–Gulf	-0.75	-0.73
Soybean	IA–Gulf	N/A	-1.01
HRW	KS–Gulf	-2.48	-2.53
HRS	ND–Portland	-2.61	-2.71

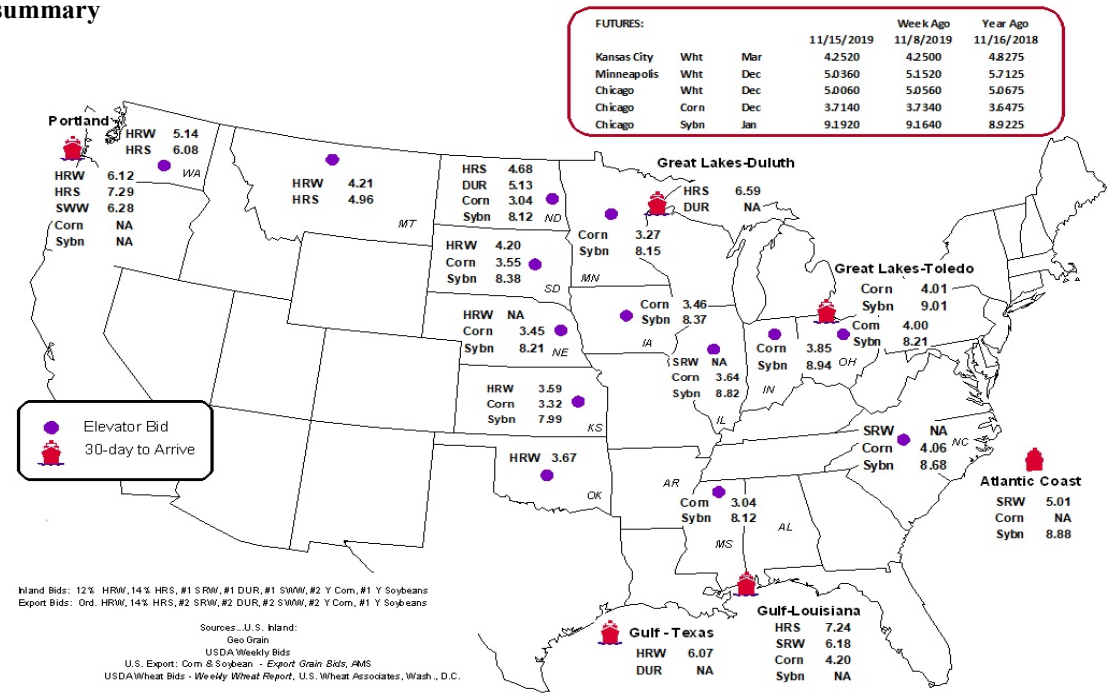
Note: nq = no quote; n/a = not available; HRW = hard red winter wheat; HRS = hard red spring wheat.

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

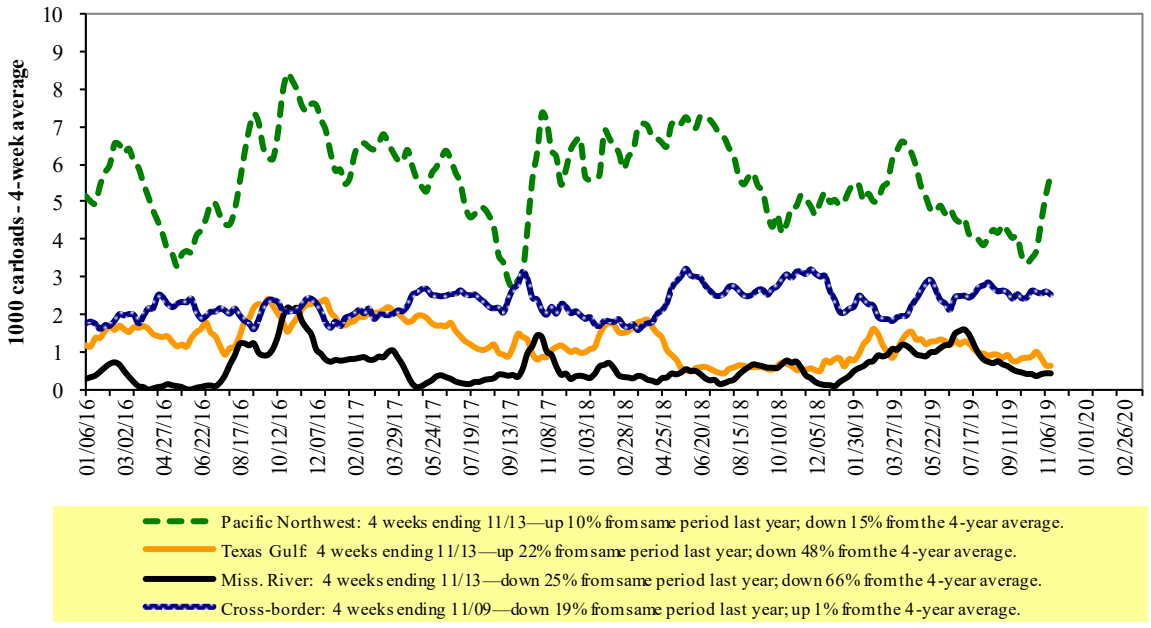
Table 3
Rail deliveries to port (carloads)[1]

For the week ending	Mississippi Gulf	Texas Gulf	Pacific Northwest	Atlantic & East Gulf	Total	Week ending	Cross-border Mexico[3]
11/13/2019[p]	335	554	6,160	222	7,271	11/9/2019	2,597
11/06/2019[r]	443	159	5,986	18	6,606	11/2/2019	2,708
2019 YTD[r]	38,069	47,885	224,248	15,389	325,591	2019 YTD	110,458
2018 YTD[r]	21,176	42,835	280,768	19,085	363,864	2018 YTD	112,438
2019 YTD as % of 2018 YTD	180	112	80	81	89	% change YTD	98
Last 4 weeks as % of 2018[2]	75	122	110	49	103	Last 4wks. % 2018	81
Last 4 weeks as % of 4-year avg.[2]	34	52	85	29	69	Last 4wks. % 4 yr.	101
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	
11/9/2019	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,845	2,448	11,119	1,234	5,209	21,855	4,649	5,268
This week last year	2,003	2,437	11,200	780	5,092	21,512	4,527	4,463
2019 YTD	81,340	120,022	489,318	51,110	228,128	969,918	183,887	201,974
2018 YTD	87,404	114,442	552,063	41,968	234,006	1,029,883	181,053	211,384
2019 YTD as % of 2018 YTD	93	105	89	122	97	94	102	96
Last 4 weeks as % of 2018*	83	94	96	132	103	98	100	99
Last 4 weeks as % of 3-yr. avg.**	78	69	95	119	88	89	97	97
Total 2018	98,978	133,161	635,458	48,638	267,713	1,183,948	211,747	244,697

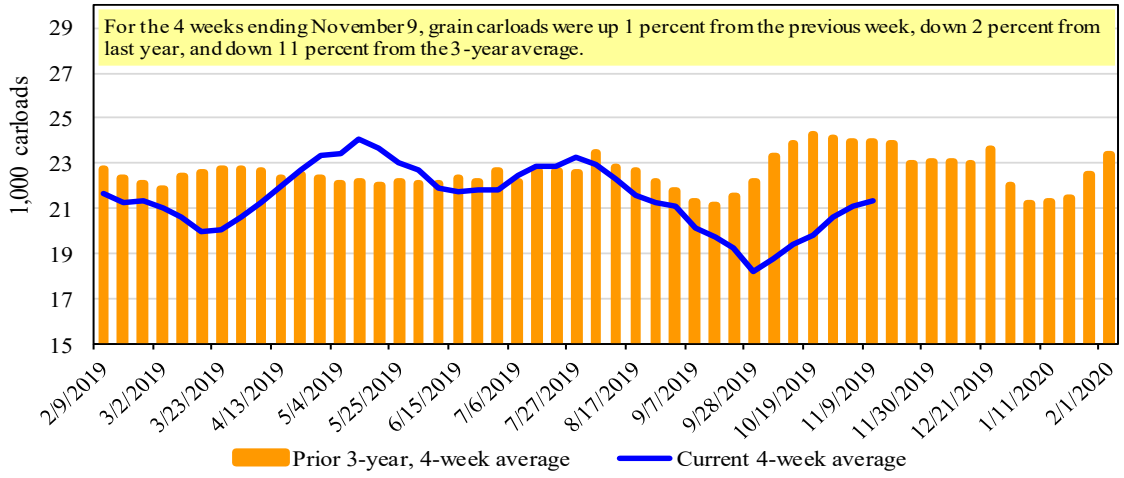
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

**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							
11/14/2019		Nov-19	Nov-18	Dec-19	Dec-18	Jan-20	Jan-19	Feb-20	Feb-19
BNSF[3]	COT grain units	no offer	n/a	0	0	no bid	no bid	no bid	no bid
	COT grain single-car	no offer	n/a	1	65	0	17	0	0
UP[4]	GCAS/Region 1	no offer	n/a	no offer	no offer	no offer	no offer	n/a	no offer
	GCAS/Region 2	no offer	n/a	no bid	no bid	no bid	no offer	n/a	no offer

[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.

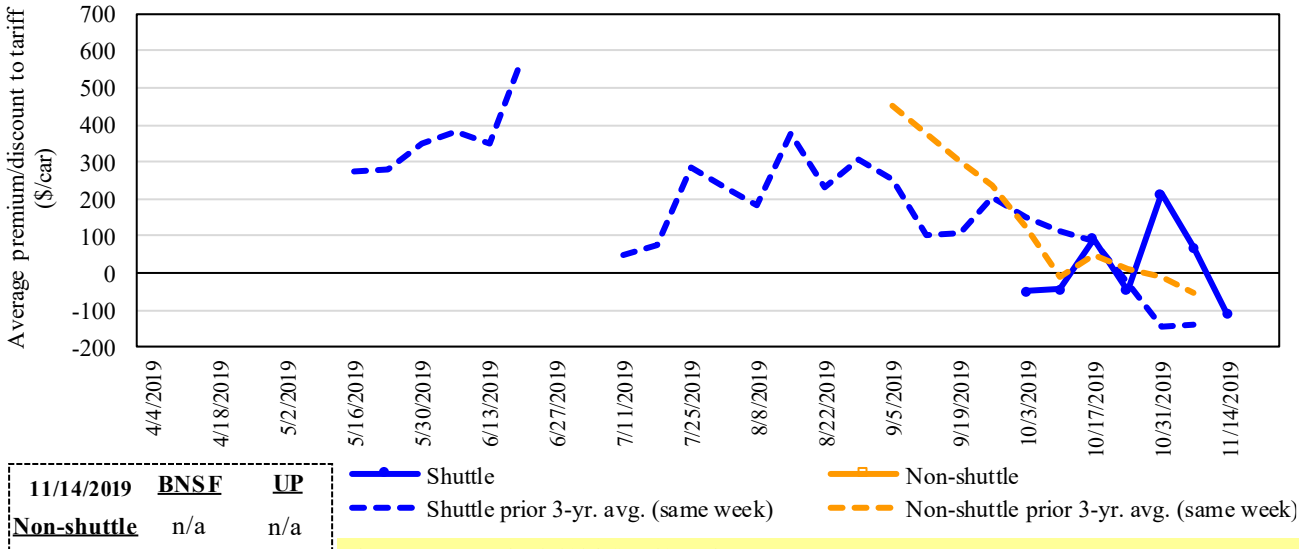
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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

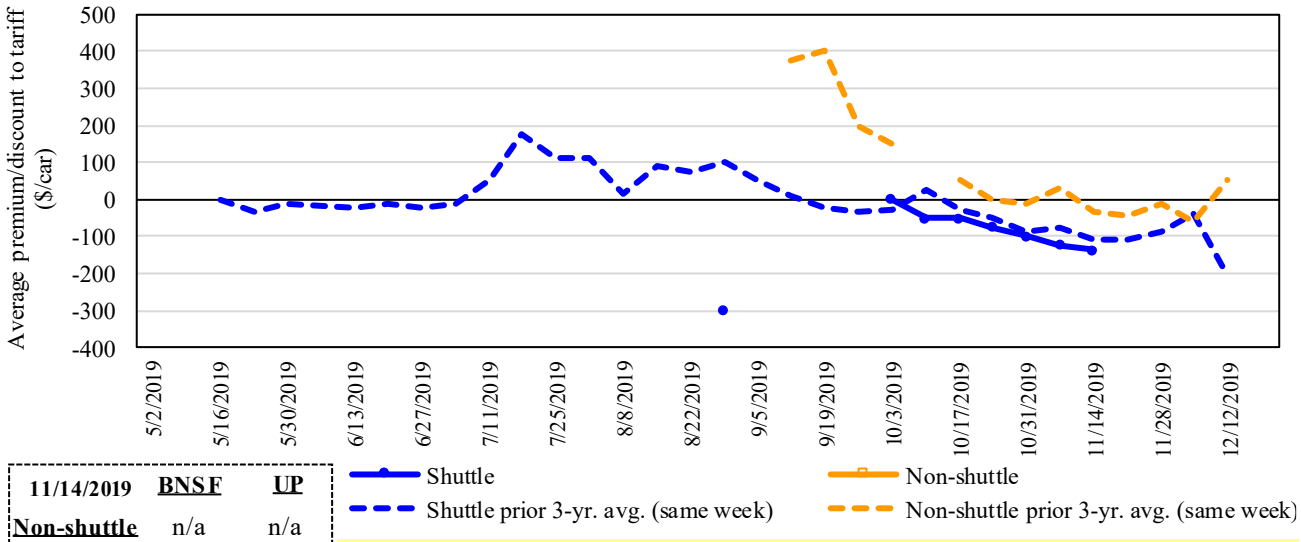


11/14/2019	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	-$75	-$150

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers fell $181 this week and are $325 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 5
Bids/offers for railcars to be delivered in December 2019, secondary market



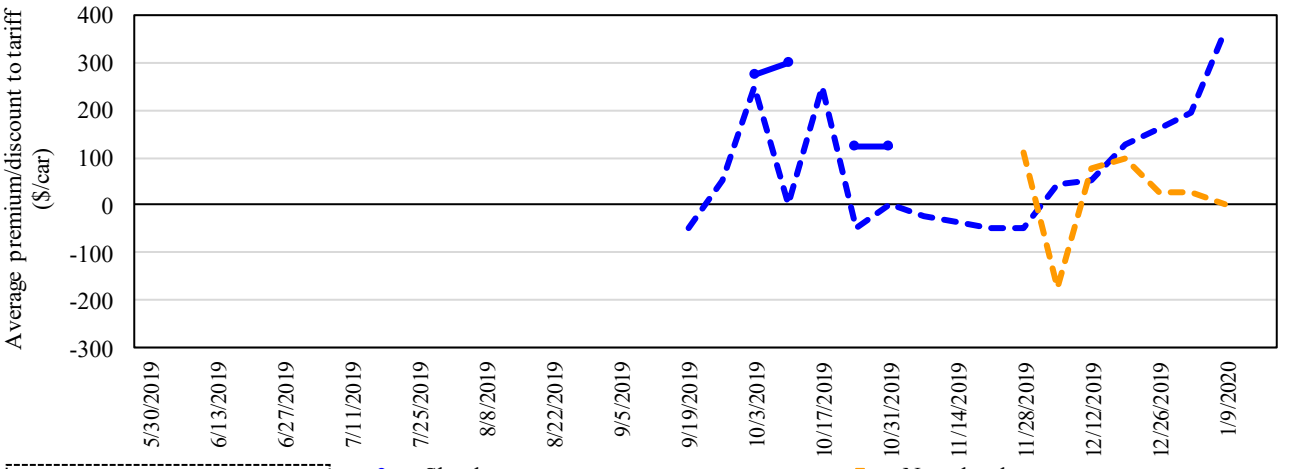
11/14/2019	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	n/a	-$138

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers fell $13 this week and are $138 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



11/14/2019	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	n/a	n/a

There were no non-shuttle bids/offers this week.
There were no shuttle bids/offers this week.

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: 11/14/2019	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**	**(75)**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	(363)	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	**(150)**	**(138)**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	0	(13)	n/a	n/a	n/a	n/a
	Change from same week 2018	n/a	63	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]	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.

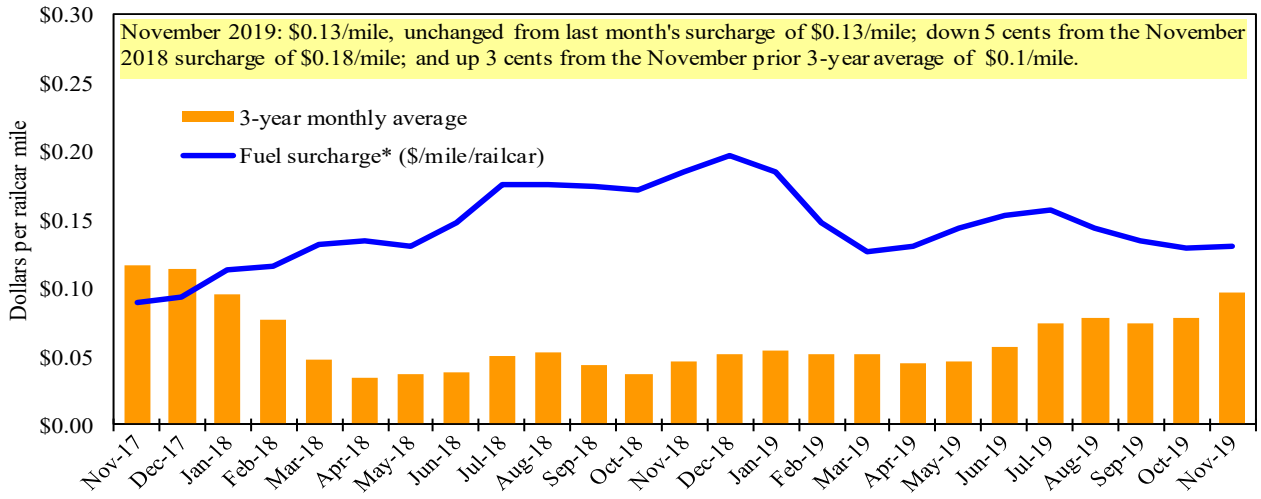
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

[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.

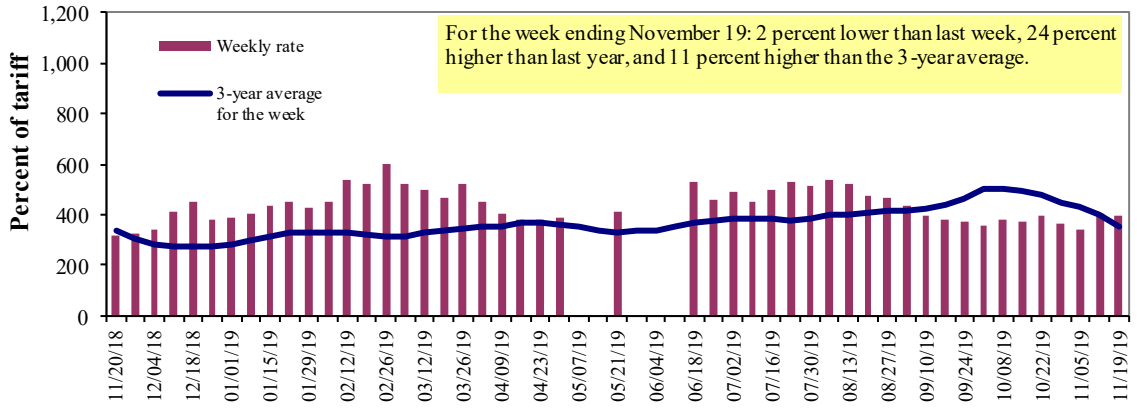
**CSX strike price changed from $2.00/gal. to $3.75/gal. starting January 1, 2015.

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

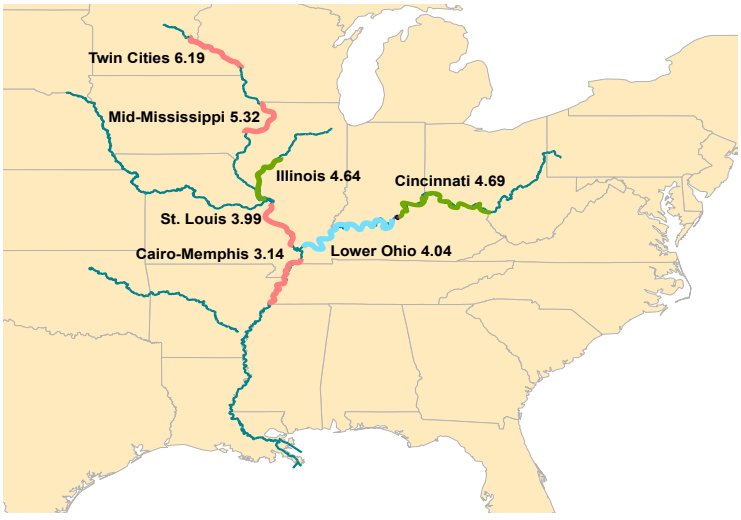
		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate[1]	11/19/2019	412	417	396	283	280	280	293
	11/12/2019	410	414	403	271	266	266	241
$/ton	11/19/2019	25.50	22.18	18.37	11.29	13.13	11.31	9.20
	11/12/2019	25.38	22.02	18.70	10.81	12.48	10.75	7.57
Current week % change from the same week:								
	Last year	14	31	24	0	0	0	27
	3-year avg. [2]	-2	14	11	4	-17	-17	24
Rate[1]	December	-	-	393	276	270	270	267
	February	-	-	389	265	269	269	252

[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

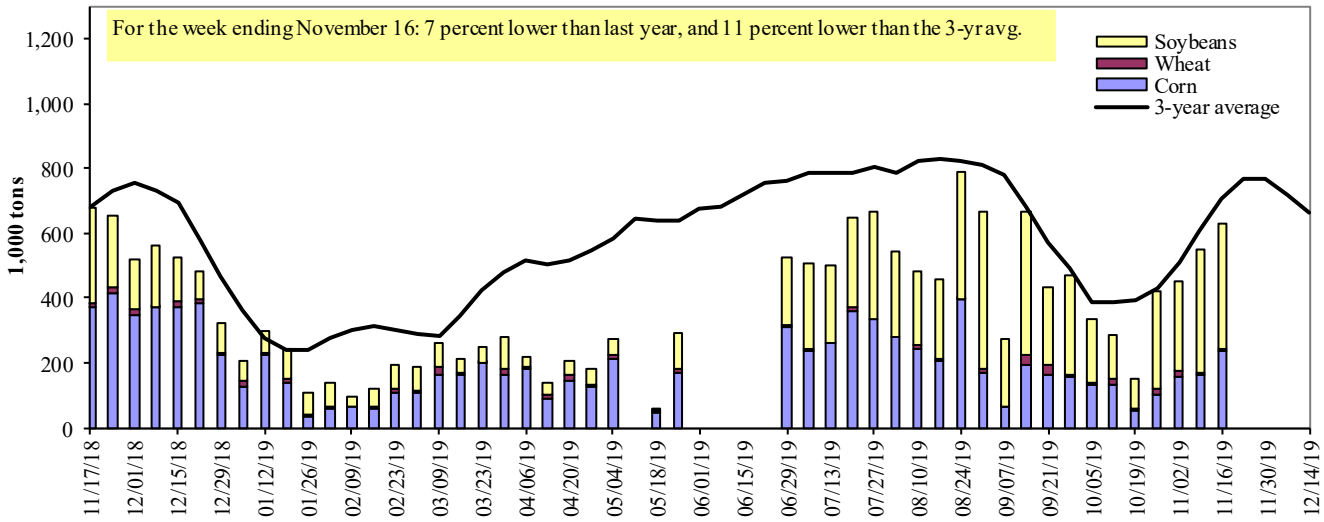
Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map.



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 11/16/2019	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	93	11	214	2	319
Winfield, MO (L25)	159	3	357	2	521
Alton, IL (L26)	241	9	401	2	652
Granite City, IL (L27)	236	9	388	0	633
Illinois River (LAGRANGE)	53	6	42	0	101
Ohio River (OLMSTED)	89	0	116	4	209
Arkansas River (L1)	0	20	28	0	47
Weekly total - 2019	325	29	532	4	889
Weekly total - 2018	378	18	336	0	732
2019 YTD[1]	10,905	1,469	11,868	141	24,384
2018 YTD[1]	20,752	1,508	11,083	101	33,445
2019 as % of 2018 YTD	53	97	107	140	73
Last 4 weeks as % of 2018[2]	67	129	133	59	100
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.

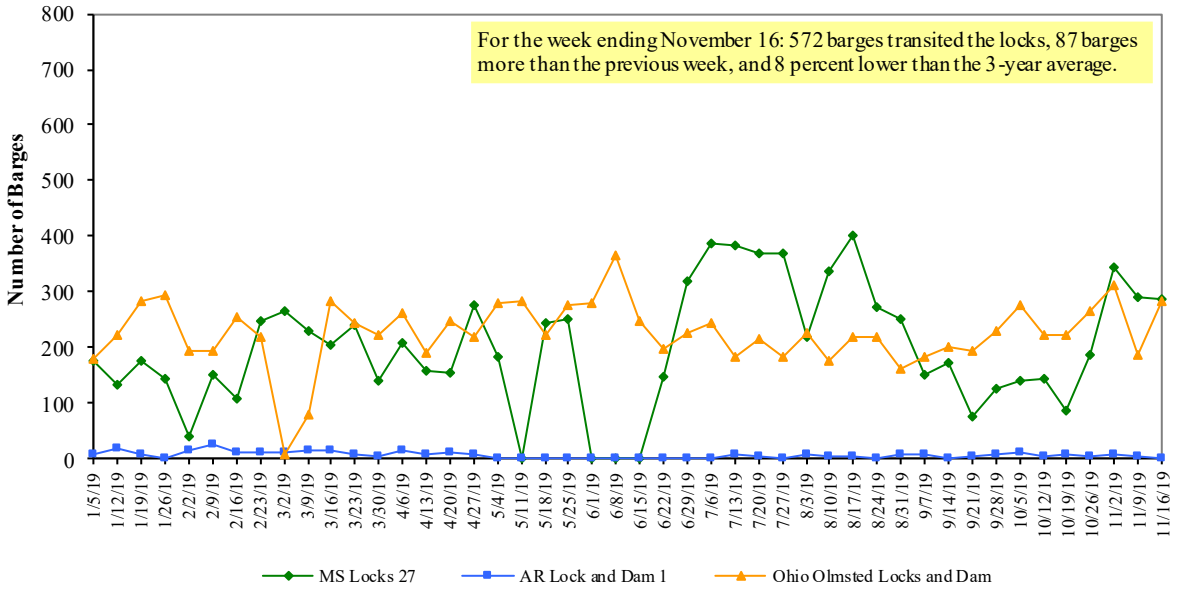
[2] As a percent of same period in 2018.

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

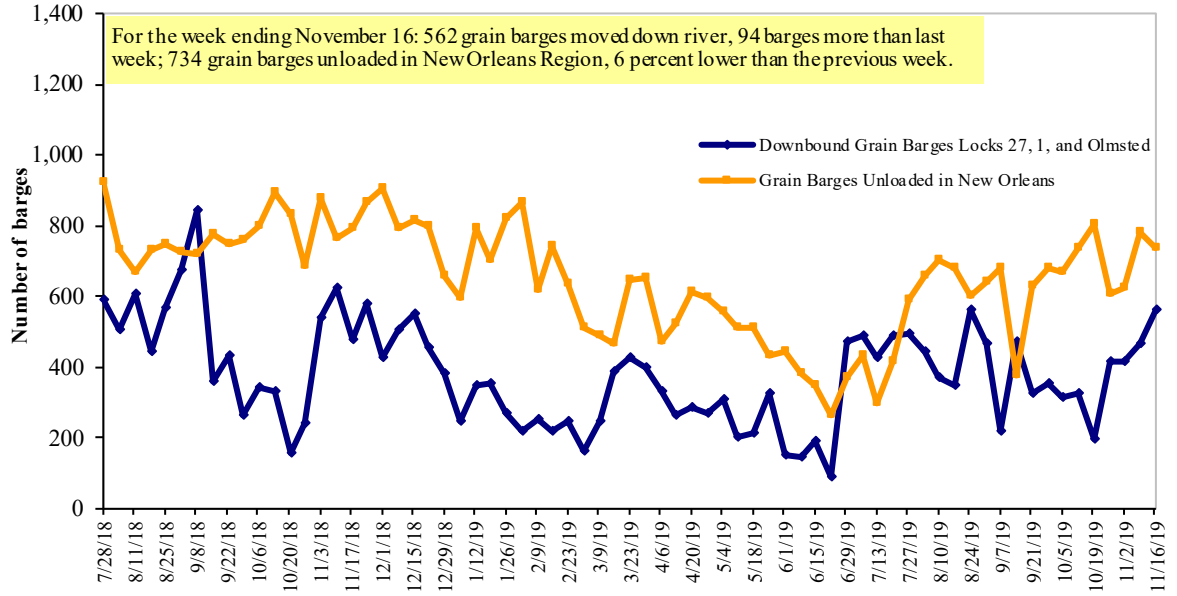
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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 11/18/2019 (U.S. $/gallon)

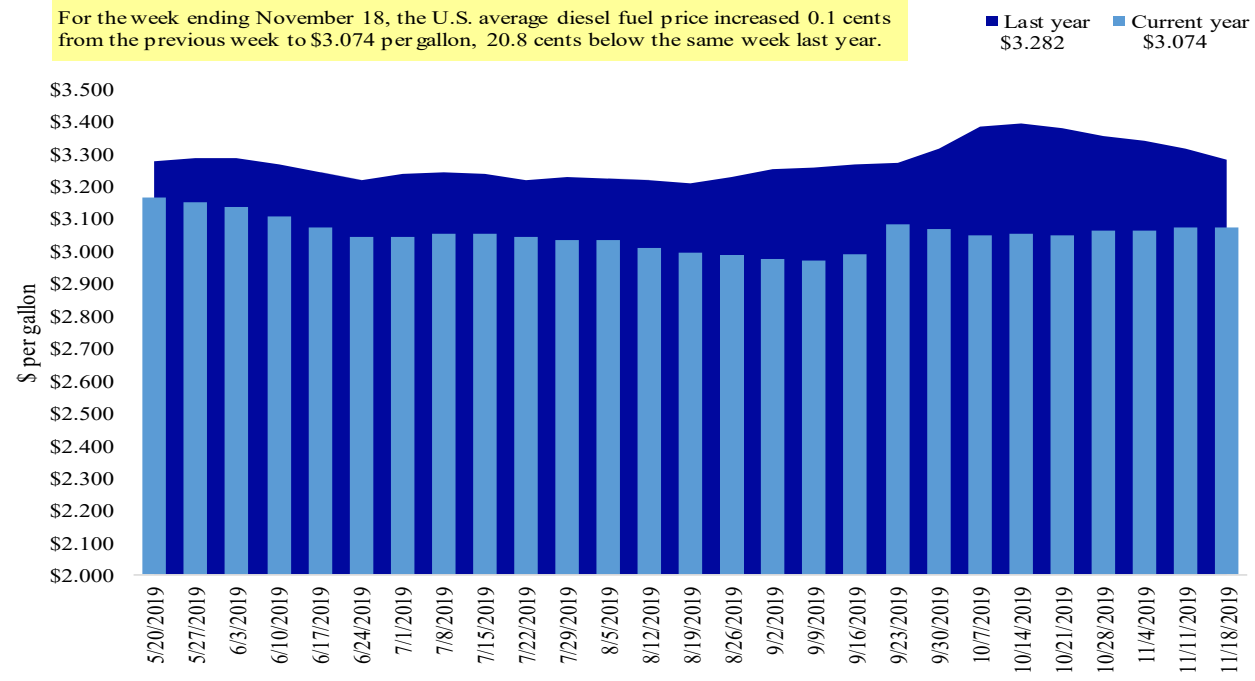
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.053	0.003	-0.242
	New England	3.049	0.007	-0.298
	Central Atlantic	3.246	0.001	-0.220
	Lower Atlantic	2.922	0.003	-0.243
II	Midwest	2.971	-0.001	-0.245
III	Gulf Coast	2.792	-0.003	-0.253
IV	Rocky Mountain	3.232	0.029	-0.128
V	West Coast	3.756	-0.002	-0.011
	West Coast less California	3.444	0.009	-0.031
	California	4.003	-0.011	0.003
Total	U.S.	3.074	0.001	-0.208

[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]									
11/7/2019	1,117	533	1,190	841	277	3,958	7,933	11,543	23,434
This week year ago	1,427	676	1,971	1,111	156	5,341	11,712	12,329	29,382
Cumulative exports-marketing year[2]									
2019/20 YTD	4,435	1,313	3,003	2,077	393	11,219	4,541	10,732	26,492
2018/19 YTD	2,624	1,049	2,650	2,277	243	8,843	11,714	9,552	30,109
YTD 2019/20 as % of 2018/19	169	125	113	91	161	127	39	112	88
Last 4 wks as % of same period 2018/19	82	85	61	81	172	77	67	94	80
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 11/07/2019	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	6,344	7,696	(18)	14,659
Japan	1,709	3,959	(57)	11,955
Korea	75	1,876	(96)	4,977
Colombia	650	1,197	(46)	4,692
Peru	0	895	(100)	2,808
Top 5 Importers	**8,778**	**15,623**	**(44)**	**39,091**
Total U.S. corn export sales	**12,475**	**23,426**	**(47)**	**54,024**
% of projected exports	27%	45%		
Change from prior week[2]	**581**	**893**		
Top 5 importers' share of U.S. corn export sales	70%	67%		72%
USDA forecast, November 2019	**47,074**	**52,545**	**(10)**	
Corn use for ethanol USDA forecast, November 2019	**136,525**	**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 11/07/2019	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	7,907	646	1124	25,733
Mexico	2,614	3,344	(22)	4,271
Indonesia	572	728	(21)	2,386
Japan	887	902	(2)	2,243
Egypt	920	794	16	1,983
Top 5 importers	**12,900**	**6,414**	**101**	**36,616**
Total U.S. soybean export sales	**22,275**	**21,880**	**2**	**53,746**
% of projected exports	46%	46%		
change from prior week[2]	**1,253**	**335**		
Top 5 importers' share of U.S. soybean export sales	58%	29%		**68%**
USDA forecast, November 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 11/07/2019	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	1,827	2,134	(14)	3,047
Mexico	2,290	1,633	40	3,034
Japan	1,574	1,769	(11)	2,695
Nigeria	958	628	52	1,564
Indonesia	357	335	7	1,381
Korea	865	984	(12)	1,355
Taiwan	772	671	15	1,164
Egypt	101	100	1	821
Thailand	463	538	(14)	747
Iraq	262	364	(28)	574
Top 10 importers	**9,467**	**9,155**	3	**16,382**
Total U.S. wheat export sales	**15,177**	**14,184**	**7**	**24,388**
% of projected exports	59%	56%		
change from prior week[2]	**239**	**438**		
Top 10 importers' share of U.S. wheat export sales	62%	65%		67%
USDA forecast, November 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 11/14/19	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	229	328	70	12,364	11,529	107	105	141	13,315
Corn	27	0	n/a	6,949	18,196	38	2	5	20,024
Soybeans	554	428	129	9,869	7,501	132	257	80	7,719
Total	**811**	**757**	**107**	**29,182**	**37,226**	**78**	**101**	**81**	**41,058**
Mississippi Gulf									
Wheat	117	83	140	4,207	3,458	122	130	153	3,896
Corn	392	361	109	18,932	30,586	62	57	65	33,735
Soybeans	910	810	112	25,798	23,807	108	105	74	28,124
Total	**1,420**	**1,255**	**113**	**48,937**	**57,851**	**85**	**89**	**74**	**65,755**
Texas Gulf									
Wheat	59	91	65	5,719	2,758	207	129	88	3,198
Corn	0	0	n/a	579	702	83	6	5	730
Soybeans	0	0	n/a	2	69	2	n/a	0	69
Total	**59**	**91**	**65**	**6,300**	**3,528**	**179**	**113**	**48**	**3,997**
Interior									
Wheat	27	39	68	1,697	1,443	118	90	99	1,614
Corn	206	210	98	6,830	7,851	87	102	103	8,650
Soybeans	136	167	81	6,228	6,099	102	99	96	6,729
Total	**368**	**416**	**88**	**14,754**	**15,393**	**96**	**100**	**100**	**16,993**
Great Lakes									
Wheat	41	26	154	1,041	727	143	212	199	894
Corn	0	0	n/a	11	404	3	55	37	404
Soybeans	0	0	n/a	473	1,019	46	0	0	1,192
Total	**41**	**26**	**154**	**1,526**	**2,149**	**71**	**51**	**39**	**2,491**
Atlantic									
Wheat	0	0	n/a	37	69	54	n/a	0	69
Corn	0	0	n/a	99	129	77	0	0	138
Soybeans	13	12	110	1,163	1,721	68	66	33	2,047
Total	**13**	**12**	**110**	**1,300**	**1,919**	**68**	**60**	**29**	**2,253**
U.S. total from ports*									
Wheat	473	568	83	25,065	19,984	125	115	127	22,986
Corn	626	572	110	33,401	57,867	58	47	60	63,682
Soybeans	1,613	1,418	114	43,533	40,215	108	120	71	45,879
Total	**2,712**	**2,557**	**106**	**101,999**	**118,066**	**86**	**93**	**75**	**132,547**

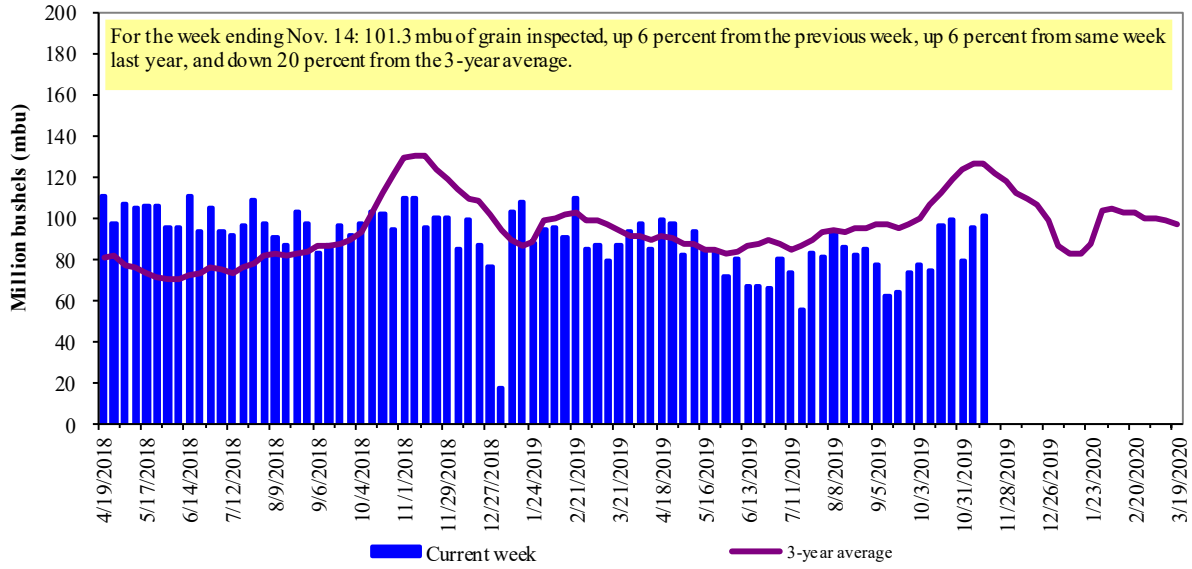
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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)

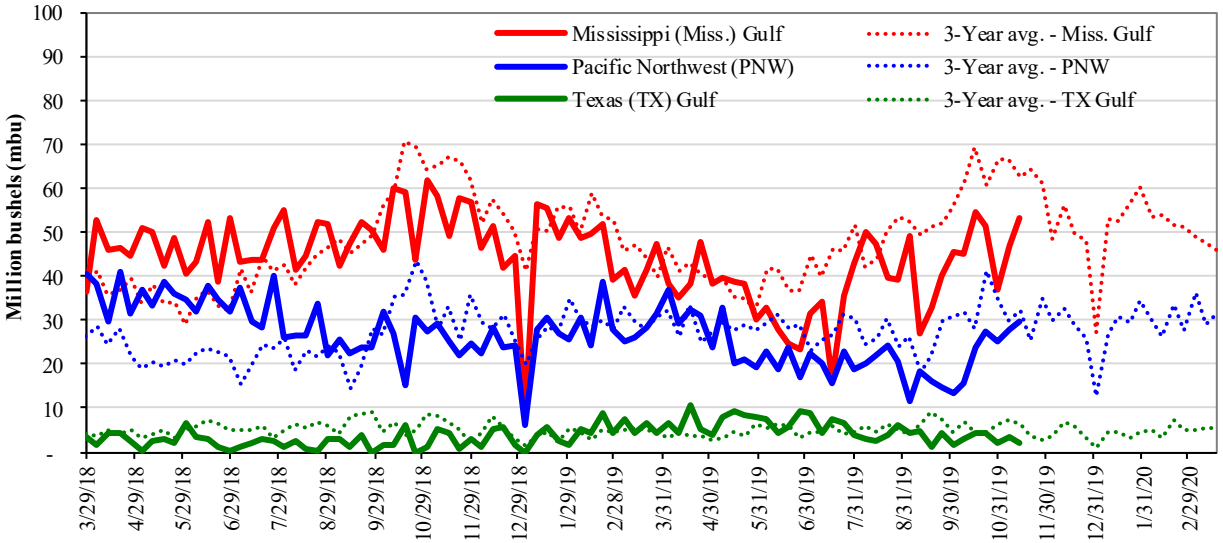


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

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



Week ending 11/14/19 inspections (mbu):	
MS Gulf:	53.2
PNW:	29.9
TX Gulf:	2.2

Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last wk:	up 13	down 35	up 10	up 7
Last Year (same wk):	up 8	down 49	up 3	up 18
3-yr avg. (4-wk. mov. Avg):	down 17	down 65	down 21	down 13

Source: USDA, Federal Grain Inspection Service.

Table 17

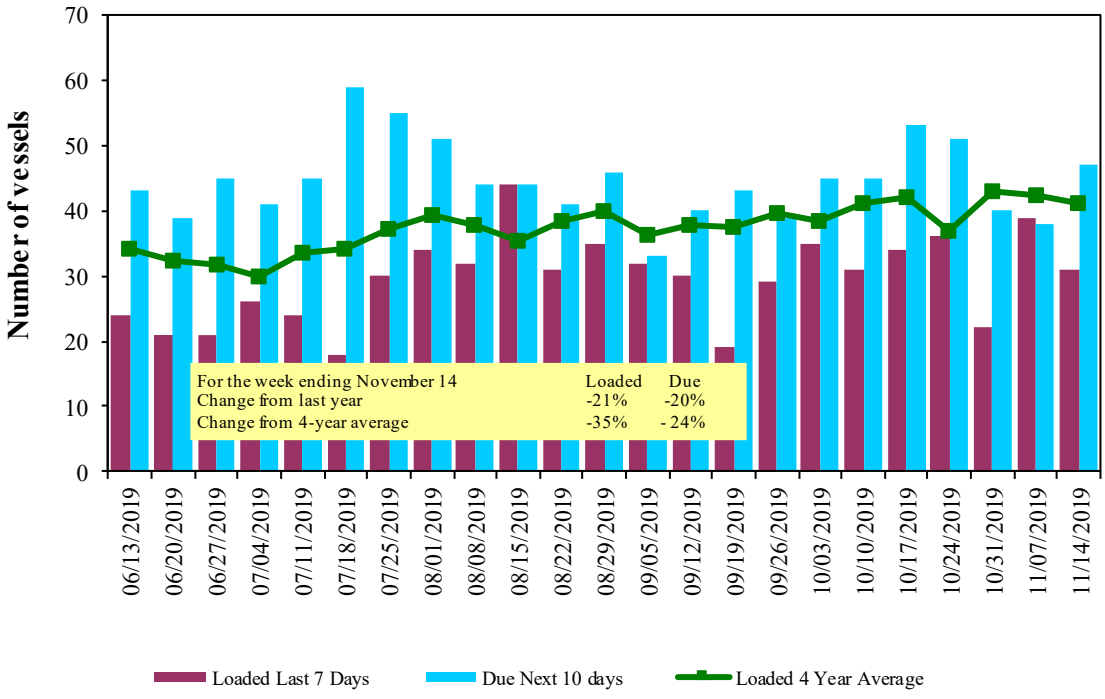
Weekly port region grain ocean vessel activity (number of vessels)

	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
11/14/2019	31	31	47	17
11/7/2019	37	39	38	16
2018 range	(23...88)	(24...41)	(38...67)	(4...30)
2018 average	40	34	54	17

Source: USDA, Agricultural Marketing Service.

Figure 16

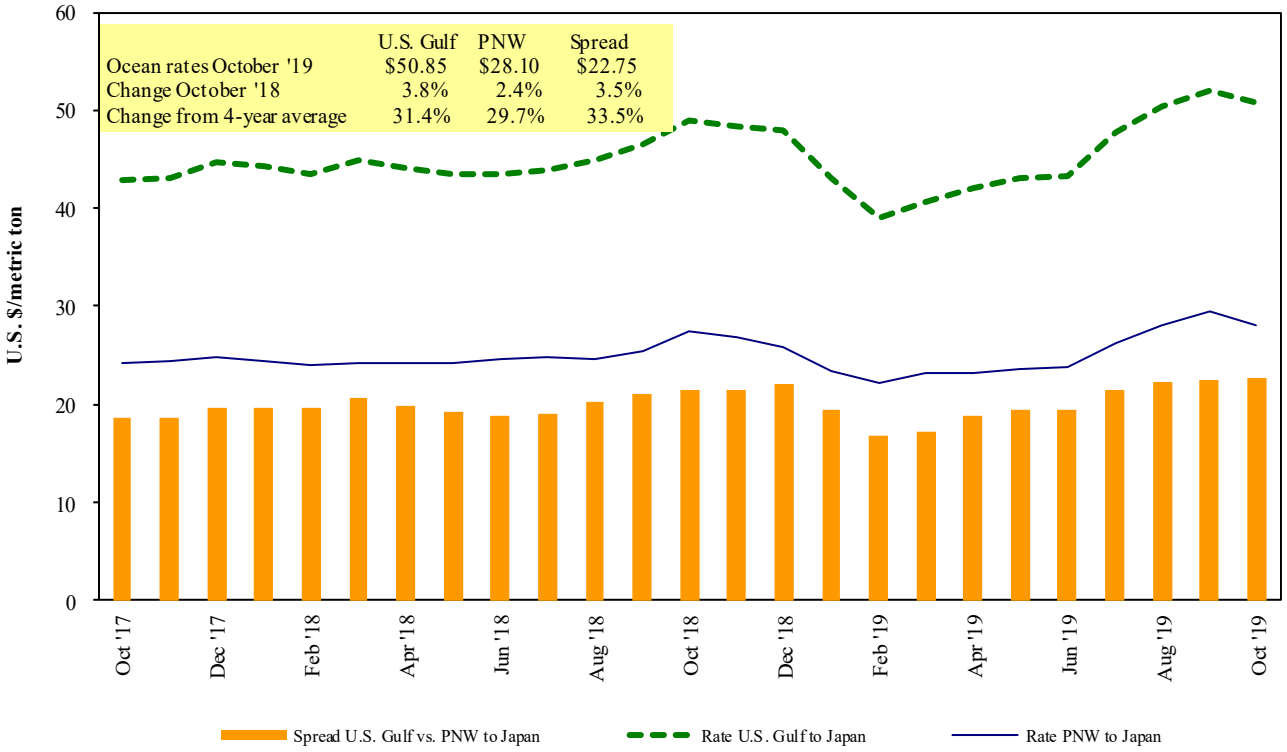
U.S. Gulf[1] vessel loading activity



[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 11/09/2019

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

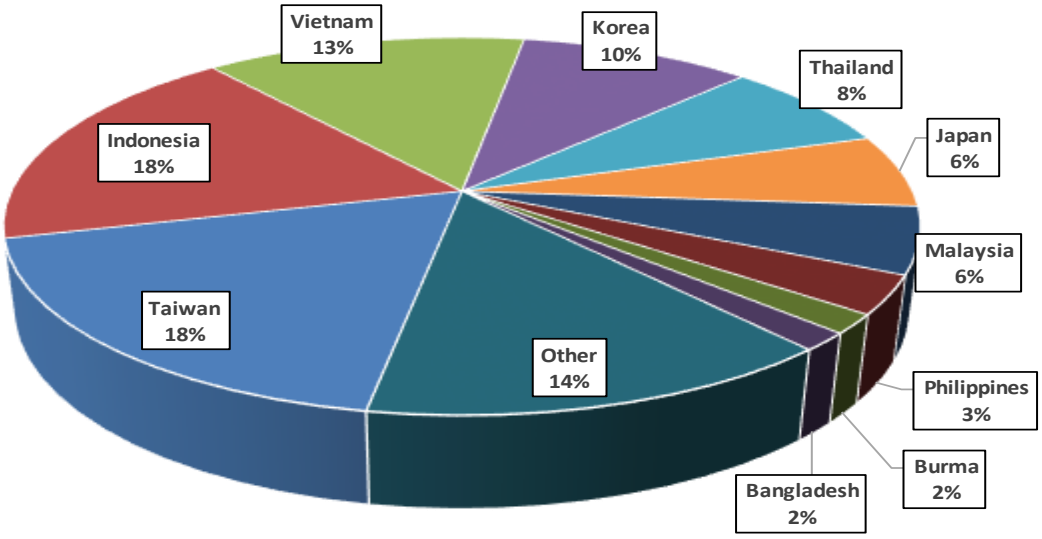
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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.

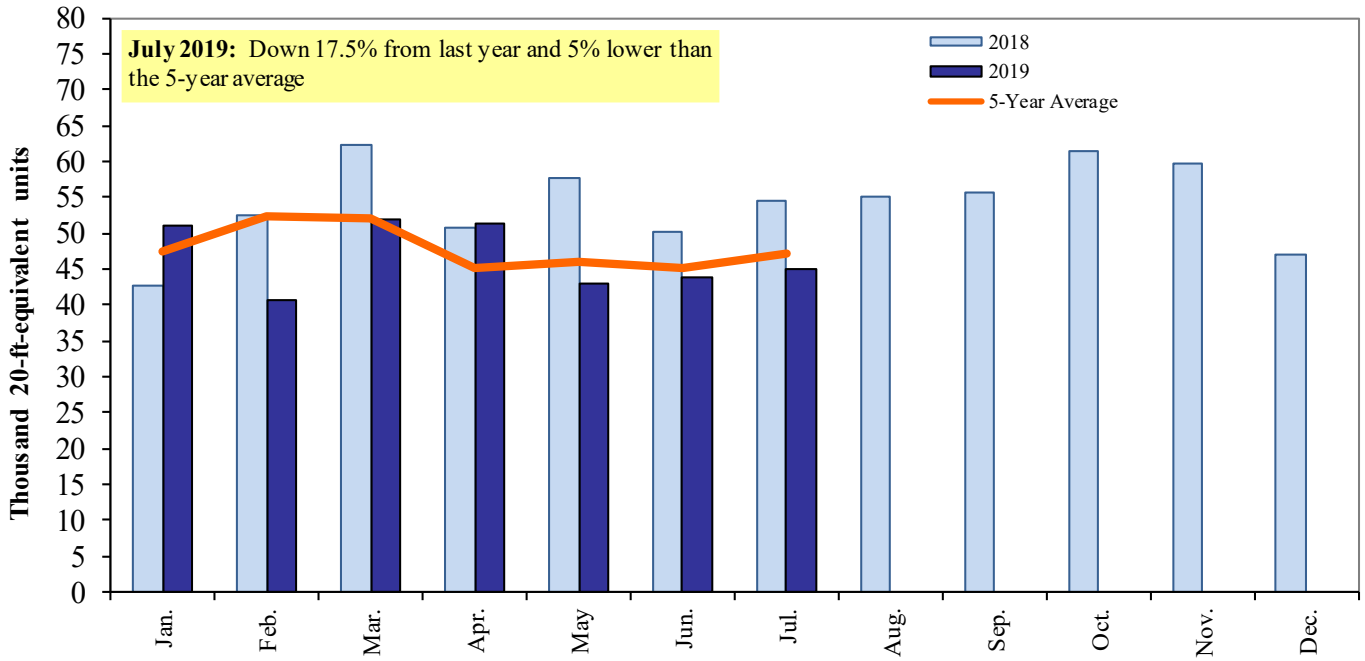
Figure 18
Top 10 destination markets for U.S. containerized grain exports, Jan-Jul 2019



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.

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