United States Department of Agriculture

Grain Transportation Report

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

Contact Us

November 15, 2018

Contents

The next release is November 22, 2018

WEEKLY HIGHLIGHTS

Grain Inspections Down Slightly

For the week ending November 8, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions reached 2.82 million metric tons (mmt); down 3 percent from the previous week, 5 percent from last year, and 18 percent from the 3-year average. Total corn inspections decreased 12 percent from the previous week, but soybean inspections increased 5 percent. Total wheat inspections, however, were unchanged from the past week. Grain inspections in the Mississippi Gulf decreased 7 percent from the past week, but Pacific Northwest (PNW) grain inspections increased 7 percent from week to week. Outstanding export sales (unshipped) of grain are up for wheat, but down for corn and soybeans.

High BNSF Grain and Overall Traffic Volumes

In a November 9 customer bulletin, BNSF Railway (BNSF) announced it was moving the heaviest traffic volume of the year. The week ending November 3 marked the eighth consecutive week of rail traffic above 200,000 units. In addition, BNSF grain carloadings over the past four weeks were 5 percent higher than the same period last year. Year-to-date BNSF grain carloadings (see GTR **Table 4**) are also 5 percent above last year—the biggest year-to-year increase of any Class I Railroad. BNSF's announcement also highlighted its cold-weather preparations and assurance to keep freight traffic moving across its network throughout the winter season.

Upper Mississippi and Illinois River Returning to Normal Operations

As of November 12, high water levels on the Upper Mississippi and Illinois rivers are decreasing and barge traffic is returning to normal operations. There have been recent increases in soybean barge shipments despite reduced export demand from China and poor navigating conditions. For the week ending November 10, soybean shipments on the locking portions of the Mississippi, Ohio, and Arkansas rivers were 547 thousand tons; 43 percent higher compared to the previous week, and the highest weekly total for soybeans since late November 2017. Time is a factor for end of calendar barge shipments, as the Upper Mississippi River at Lock and Dam 20, at Canton, MO will be closed for repair work on December 15. It will re-open on March 5, 2019. The closure will halt barge traffic from Iowa, northwest Illinois, Wisconsin, and Minnesota for the winter.

USDA Study on Infrastructure and Transportation Costs on U.S. Soybean Market Share

USDA-AMS recently published a study, "The Impact of Infrastructure and Transportation Costs on U.S. Soybean Market Share: An Updated Analysis from 1992-2017." The report examines new transportation routes that have emerged in Brazil and updates previous data and analysis. Although the United States produces the largest volume of soybeans in the world, the U.S. market share of soybean world trade has declined from 66 percent in 1992 to 40 percent in 2017. Results suggest the U.S. world market share could decline an additional 12 percentage points assuming there are no significant improvements in U.S. transportation infrastructure serving the soybean supply chain, from farm to port. A decline of 1 percent in the U.S. soybean market share is equivalent to more than half a billion dollars lost in export sales.

Snapshots by Sector

Export Sales

For the week ending November 1, **unshipped balances** of wheat, corn, and soybeans totaled 30.3 mmt, down 16 percent from the same time last year. Net weekly **wheat export sales** were .661 mmt, up 13 percent from the previous week. Net **corn export sales** were .701 mmt, up 77 percent from the previous week. Net **soybean export sales** were .388 mmt, down 2 percent from the past week.

Rail

U.S. Class I railroads originated 20,441 **grain carloads** for the week ending November 3; down 12 percent from the previous week, 12 percent from last year, and 20 percent from the 3-year average.

Average November shuttle **secondary railcar** bids/offers per car were $250 below tariff for the week ending November 8, down $50 from last week, and $75 lower than last year. Average non-shuttle secondary railcar bids/offers were $0, unchanged from last week. There were no non-shuttle bids/offers this week last year.

Barge

For the week ending November 10, **barge grain movements** totaled 973,427 tons, 14 percent higher than the previous week and down 12 percent from the same period last year.

For the week ending November 10, 622 grain barges **moved down river**, 82 more than the previous week. There were 766 grain barges **unloaded in New Orleans**, 13 percent lower than the previous week.

Ocean

For the week ending November 8, 35 **ocean-going grain vessels** were loaded in the Gulf, 13 percent less than the same period last year. Fifty-three vessels are expected to be loaded within the next 10 days, 6 percent more than the same period last year.

For the week ending November 8, the ocean freight rate for shipping bulk grain, from the Gulf to Japan, was $48.50 per metric ton, 1 percent less than the previous week. The cost of shipping, from the PNW to Japan, was $27.00 per metric ton, 1 percent less than the previous week.

Fuel

For the week ending November 12, the **U.S. average diesel fuel price** decreased 2.1 cents, from the previous week, to $3.317 per gallon, 40.2 cents above the same week last year

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Web: **http://dx.doi.org/10.9752/TS056.11-15-2018**

Feature Article/Calendar

Corn and Soybean Landed Cost to Mexico Decreased, Wheat Increased

The landed costs of shipping corn and soybeans by water and land routes, from the United States to Mexico, decreased during the third quarter compared to the previous quarter (see table). However, U.S. landed costs for wheat to Mexico increased for both routes compared to the previous quarter. The landed costs for waterborne corn and soybean fell due to a combination of decreases in truck and barge rates and farm values. The drop in the landed costs of corn and soybeans transported by land was mainly due to the reduction in farm values. The landed costs for wheat were pushed up due to increases in farm values and the costs of all transportation modes (see table).

Quarterly costs of transporting U.S. grain to Veracruz and Guadalajara, Mexico

	Water route (to Veracruz) $/metric ton					Land route (to Guadalajara) $/metric ton				
	2017 3rd qtr.	2018 2nd qtr.	2018 3rd qtr.	Percent change Yr. to Yr.	Qtr. to Qtr.	2017 3rd qtr.	2018 2nd qtr.	2018 3rd qtr.	Percent change Yr. to Yr.	Qtr. to Qtr.
Corn										
Origin			IL					IA		
Truck	13.02	12.06	10.54	-19.0	-12.6	4.00	4.66	5.12	28.0	9.9
Rail [1]						85.68	87.96	88.41	3.2	0.5
Barge	17.75	26.29	25.32	42.6	-3.7					
Ocean[2]	12.98	14.07	14.68	13.1	4.3					
Total transportation cost[3]	43.75	52.42	50.54	15.5	-3.6	89.68	92.62	93.53	4.3	1.0
Farm Value[4]	132.80	143.69	133.98	0.9	-6.8	128.60	139.49	130.83	1.7	-6.2
Landed Cost[5]	176.55	196.11	184.52	4.5	-5.9	218.28	232.11	224.36	2.8	-3.3
Transport % of landed cost	25	27	27			41	40	42		
Soybeans										
Origin			IL					NE		
Truck	13.02	12.06	10.54	-19.0	-12.6	4.00	4.66	5.12	28.0	9.9
Rail						93.53	91.88	92.60	-1.0	0.8
Barge	17.75	26.29	25.32	42.6	-3.7					
Ocean	12.98	14.07	14.68	13.1	4.3					
Total transportation cost	43.75	52.42	50.54	15.5	-3.6	97.53	96.54	97.72	0.2	1.2
Farm Value	351.27	364.86	330.94	-5.8	-9.3	332.65	352.86	317.83	-4.5	-9.9
Landed Cost	395.02	417.28	381.48	-3.4	-8.6	430.18	449.40	415.55	-3.4	-7.5
Transport % of landed cost	11	13	13			23	21	24		
Wheat										
Origin			KS					KS		
Truck	4.00	4.66	5.12	28.0	9.9	4.00	4.66	5.12	28.0	9.9
Rail	41.42	41.83	42.66	3.0	2.0	77.19	78.02	79.08	2.4	1.4
Ocean	12.98	13.97	14.68	13.1	5.1					
Total transportation cost	58.40	60.46	62.46	7.0	3.3	81.19	82.68	84.20	3.7	1.8
Farm Value	146.36	175.02	184.94	26.4	5.7	146.36	175.02	184.94	26.4	5.7
Landed Cost	204.76	235.48	247.40	20.8	5.1	227.55	257.70	269.14	18.3	4.4
Transport % of landed cost	29	26	25			36	32	31		

[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: O'Neil Commodity Consulting

[3]Transportation costs for Kansas wheat transported via water route were revised from previous estimates

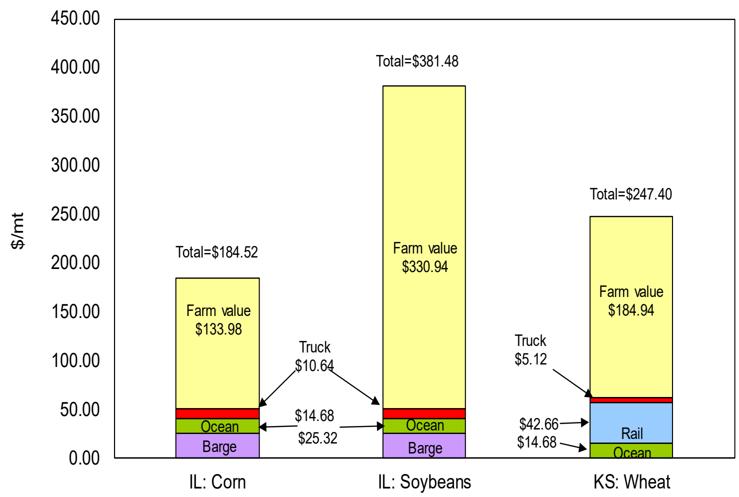
[4]Source: USDA/NASS

[5]Landed cost is total transportation cost plus farm value

Despite navigation disruptions caused by high water conditions, the average barge rate declined during the third quarter, compared to the previous quarter. The decline was due to reduced demand for barge services caused by a recent decrease in soybean exports. On average, 88 percent of soybean deliveries for export through the Mississippi Gulf are delivered by barges (see November 1, 2018 *Grain Transportation Report*). Reduced demand also caused the truck rate, for transporting corn and soybeans to barge-served river elevators, to fall during the quarter. However, like increased rail tariff rates, short-haul truck rates to rail-served elevators increased during the quarter, compared to the previous quarter.

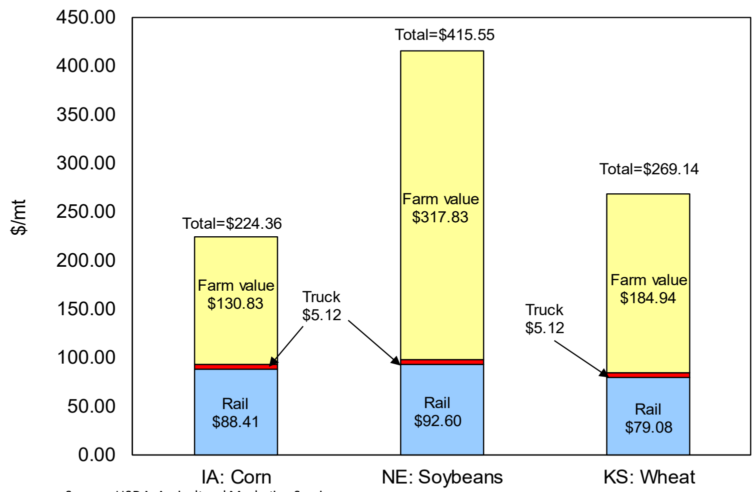
Although both transportation costs and farm values fell for waterborne corn and soybeans from quarter to quarter in 2018, the transportation share of the landed costs remained unchanged. For corn and soybeans transported by the land route, an increase in the transportation costs coupled with a decrease in the farm values caused the transportation share of the landed costs to increase from quarter to quarter in 2018. However, an offsetting increase in farm values for wheat—compared to transportation costs—caused the transportation share of the landed costs for both water and land routes to decrease from the second to third quarter. Landed costs for the water route ranged from $185 to $381 per metric ton (mt) for the water route (see table and figure 1) and $224 to $416 per mt for the land route (see table and figure 2). The transportation share of the landed costs ranged from 13 to 27 percent for the water route (see table and figure 1) and 24 to 42 percent for the land route (see table and figure 2).

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



Source: USDA, Agricultural Marketing Service

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



Source: USDA, Agricultural Marketing Service

According to USDA's grain inspection data, more corn and soybeans were inspected for export to Mexico during the third quarter of 2018, compared to the same period in 2017. In 2018, 3.90 and 1.22 million metric tons (mmt) of corn and soybeans were inspected for export to Mexico compared to 3.87 and 0.99 mmt, respectively, in 2017. Year-to-date corn and soybean exports to Mexico are also greater than in 2017, 12.16 and 3.85 mmt compared to 11.18 and 2.98 mmt, respectively. In comparison, however, less wheat was inspected for export to Mexico, only 73 mmt during the third quarter of 2018 compared to .89 mmt during the same period last year. Lower farm values and transportation costs enhanced the competitiveness of U.S. corn and soybean exports to Mexico. Low transportation costs give the U.S. a competitive advantage on exports to Mexico.

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Grain Transportation Indicators

Table 1

Grain Transport Cost Indicators [1]

For the week ending	Truck	Rail: Unit Train	Rail: Shuttle	Barge	Ocean: Gulf	Ocean: Pacific
11/14/18	223	282	210	186	217	191
11/07/18	224	282	212	199	219	193

[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)

Source: Transportation & Marketing Programs/AMS/USDA

Table 2

Market Update: U.S. Origins to Export Position Price Spreads ($/bushel)

Commodity	Origin--Destination	11/9/2018	11/2/2018
Corn	IL--Gulf	-0.73	-0.79
Corn	NE--Gulf	-0.82	-0.86
Soybean	IA--Gulf	-1.08	-1.18
HRW	KS--Gulf	-1.35	-1.35
HRS	ND--Portland	-1.66	-1.85

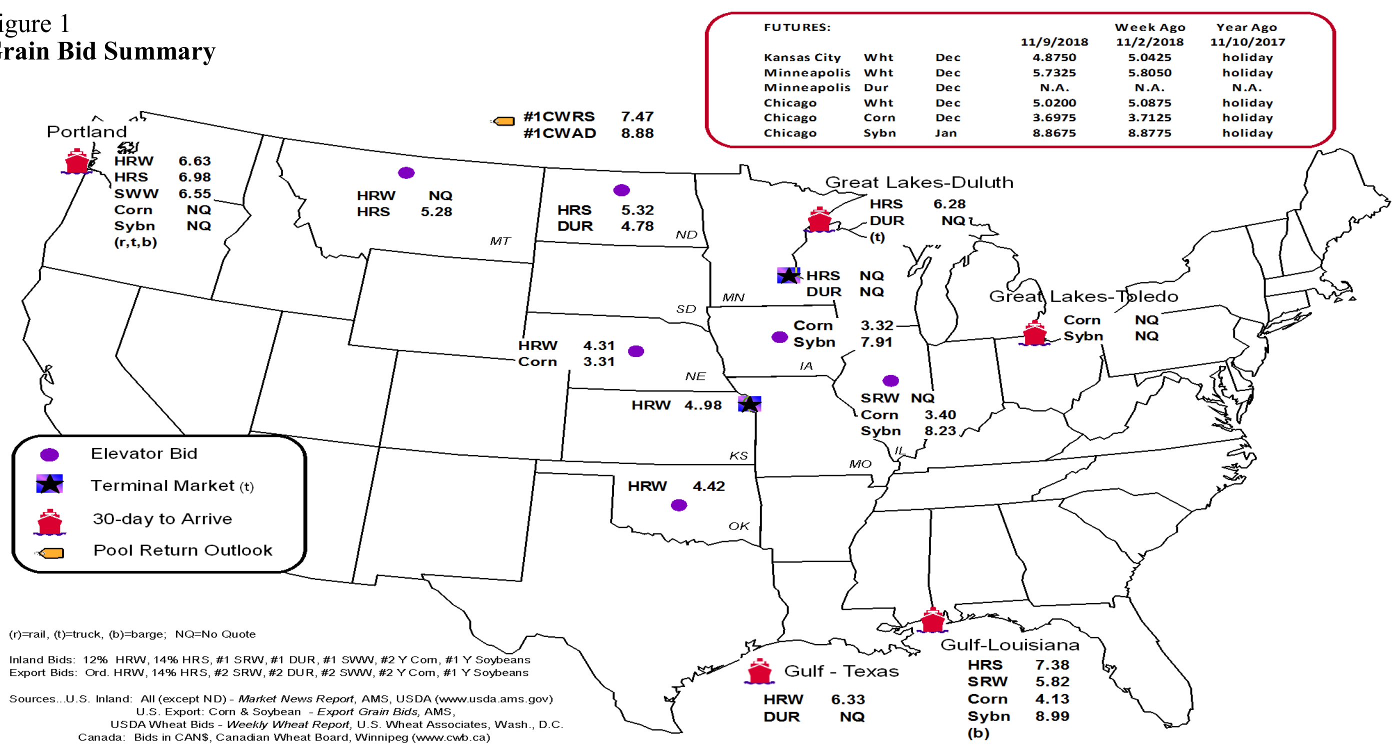
Note: nq = no quote; n/a = not available

Source: Transportation & Marketing Programs/AMS/USDA

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]
11/07/2018[p]	644	577	4,872	580	6,673	11/4/2018	3,402
10/31/2018[r]	505	284	5,865	508	7,162	10/27/2018	3,113
2018 YTD[r]	20,972	42,038	275,915	18,519	357,444	2018 YTD	109,313
2017 YTD[r]	25,943	68,902	246,424	19,236	360,505	2017 YTD	104,692
2018 YTD as % of 2017 YTD	81	61	112	96	99	% change YTD	104
Last 4 weeks as % of 2017[2]	74	56	67	54	66	Last 4wks % 2017	156
Last 4 weeks as % of 4-year avg.[2]	44	38	63	50	56	Last 4wks % 4 yr	152
Total 2017	28,796	76,545	289,178	21,999	416,518	Total 2017	119,661
Total 2016	36,925	88,035	299,604	29,007	453,571	Total 2016	92,982

[1] Data is incomplete as it is voluntarily provided

[2] Compared with same 4-weeks in 2017 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 KCSM and Grupo Mexico.

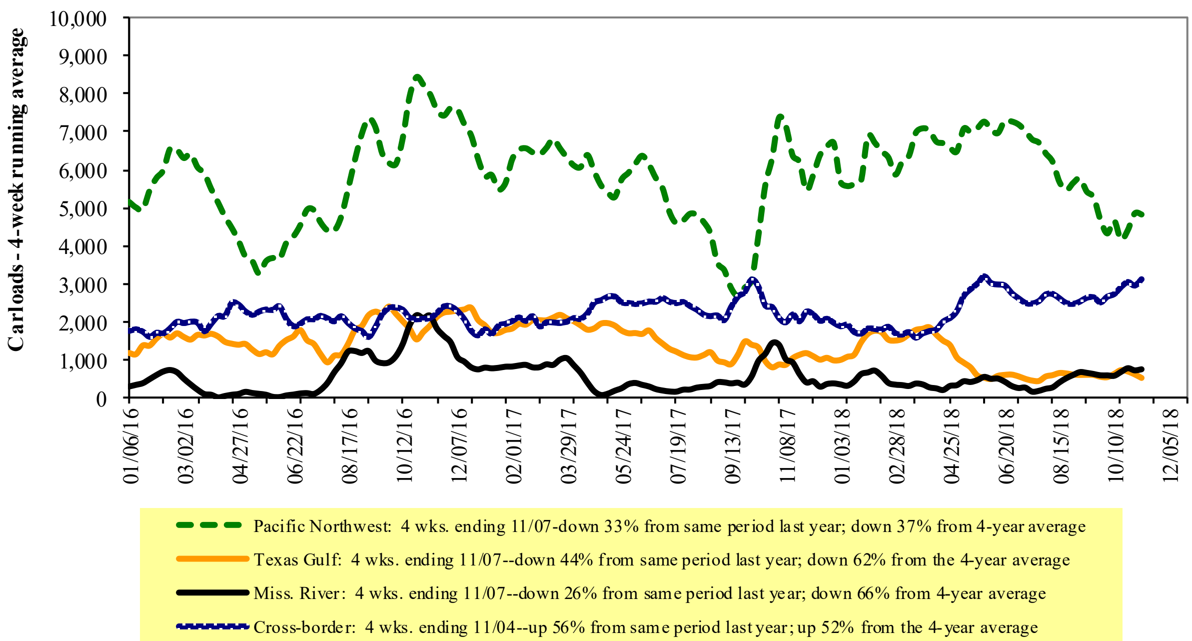
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available

Source: Transportation & Marketing Programs/AMS/USDA

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: Transportation & Marketing Programs/AMS/USDA

Table 4

Class I Rail Carrier Grain Car Bulletin (grain carloads originated)

For the week ending: 11/3/2018	East		West			U.S. total	Canada	
	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	2,441	2,167	10,161	611	5,061	20,441	4,640	5,548
This week last year	2,275	3,196	11,290	1,069	5,515	23,345	4,704	5,207
2018 YTD	85,401	112,032	540,863	41,188	228,914	1,008,398	176,855	206,921
2017 YTD	74,871	121,372	487,141	43,048	249,906	976,338	167,795	205,732
2018 YTD as % of 2017 YTD	114	92	111	96	92	103	105	101
Last 4 weeks as % of 2017*	101	82	104	77	88	96	101	94
Last 4 weeks as % of 3-yr avg.**	89	71	99	89	77	89	92	100
Total 2017	89,465	142,809	578,964	50,223	289,574	1,151,035	198,413	244,766

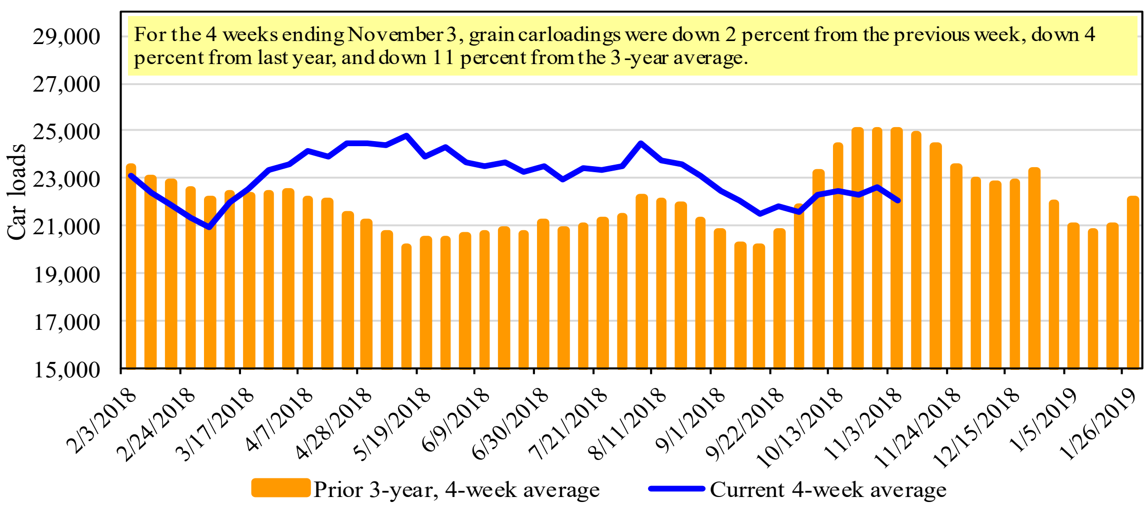
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

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

Source: Association of American Railroads (www.aar.org)

Figure 3

Total Weekly U.S. Class I Railroad Grain Car Loadings



Source: Association of American Railroads

Table 5

Railcar Auction Offerings[1] ($/car)[2]

For the week ending: 11/8/2018		Delivery period							
		Nov-18	Nov-17	Dec-18	Dec-17	Jan-19	Jan-18	Feb-19	Feb-18
BNSF[3]	COT grain units	no bid	no bids	no bid	no bids	no bid	no bids	no bid	no bids
	COT grain single-car[5]	0	0	0	0	0	0	0	0
UP[4]	GCAS/Region 1	no offer	no bids	no offer	no bids	no offer	no bids	n/a	n/a
	GCAS/Region 2	no offer	no bids	no offer	no bids	no offer	no bids	n/a	n/a

[1]Auction offerings are for single-car and unit train shipments only.

[2]Average premium/discount to tariff, last auction

[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.

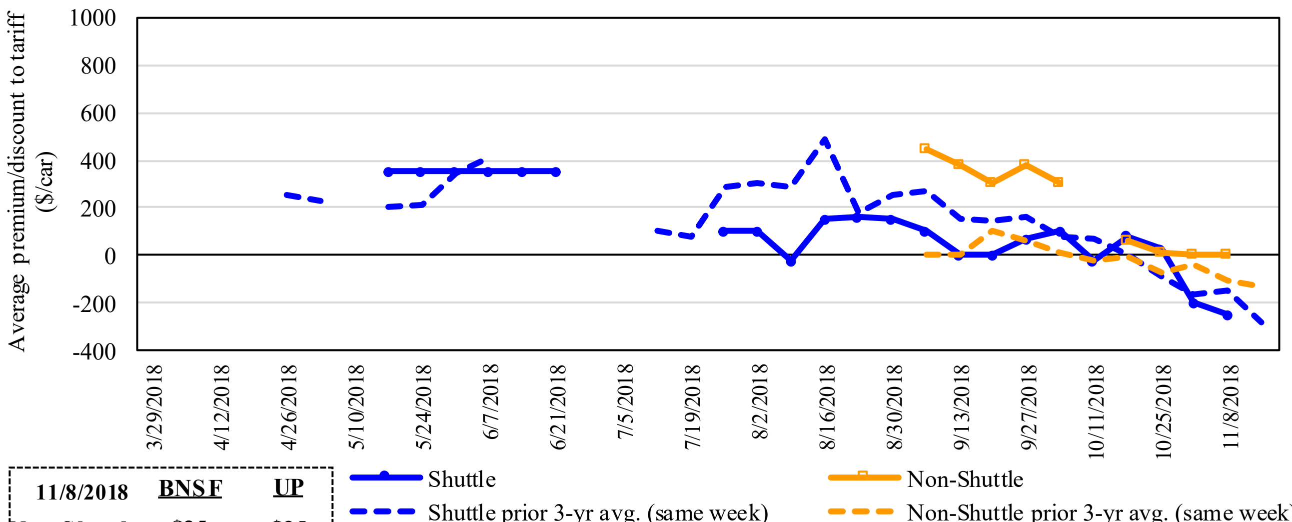
Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

[5]Range is shown because average is not available. Not available = n/a.

Source: Transportation & Marketing Programs/AMS/USDA.

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 2018, Secondary Market

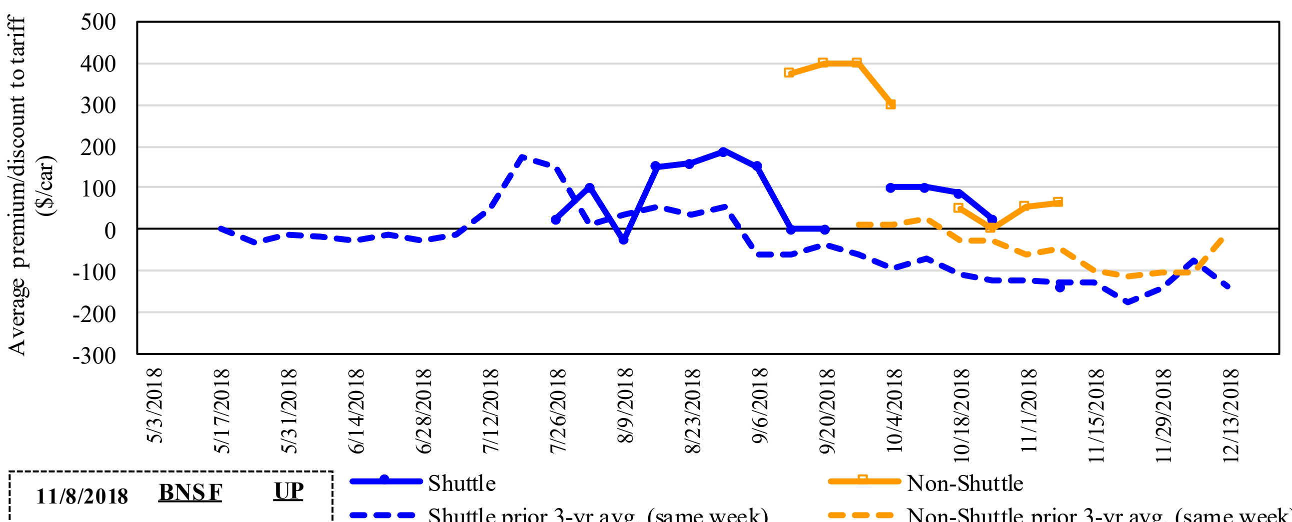


11/8/2018	BNSF	UP
Non-Shuttle	$25	-$25
Shuttle	-$213	-$288

Average Non-shuttle bids/offers are unchanged this week, and are $450 below the peak.
Average Shuttle bids/offers fell $50 this week and are $600 below the peak.

Non-shuttle bids include unit-train and single-car bids. n/a = not available.
Source: Transportation & Marketing Programs/AMS/USDA

Figure 5
Bids/Offers for Railcars to be Delivered in December 2018, Secondary Market

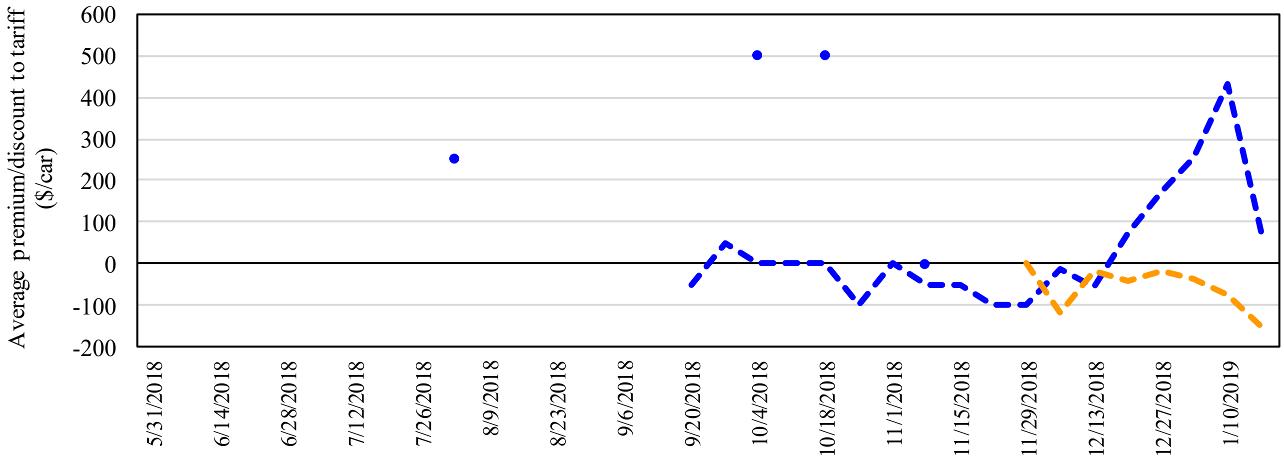


11/8/2018	BNSF	UP
Non-Shuttle	$25	$100
Shuttle	-$175	-$100

Average Non-shuttle bids/offers rose $6 this week, and are $338 below the peak.
There were no Shuttle bids/offers last week. Average Non-Shuttle bids/offers this week are $325 below the peak.

Non-shuttle bids include unit-train and single-car bids. n/a = not available.
Source: Transportation & Marketing Programs/AMS/USDA

Figure 6
Bids/Offers for Railcars to be Delivered in January 2019, Secondary Market



11/8/2018	BNSF	UP
Non-Shuttle	n/a	n/a
Shuttle	$0	n/a

There were no Non-Shuttle bids/offers this week.
There were no Shuttle bids/offers last week. Average Non-Shuttle bids/offers this week are $500 below the peak.

Non-shuttle bids include unit-train and single-car bids. n/a = not available.
Source: Transportation & Marketing Programs/AMS/USDA

Table 6
Weekly Secondary Railcar Market ($/car)[1]

	For the week ending: 11/8/2018	Delivery period					
		Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19
Non-shuttle	**BNSF-GF**	**25**	**25**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	25	25	n/a	n/a	n/a	n/a
	Change from same week 2017	n/a	n/a	n/a	n/a	n/a	n/a
	UP-Pool	**(25)**	**100**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	n/a	(13)	n/a	n/a	n/a	n/a
	Change from same week 2017	n/a	n/a	n/a	n/a	n/a	n/a
Shuttle	**BNSF-GF**	**(213)**	**(175)**	**0**	**n/a**	**n/a**	**n/a**
	Change from last week	(13)	n/a	n/a	n/a	n/a	n/a
	Change from same week 2017	(113)	(150)	n/a	n/a	n/a	n/a
	UP-Pool	**(288)**	**(100)**	**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 2017	(38)	100	n/a	n/a	n/a	n/a

[1]Average premium/discount to tariff, $/car-last week
Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,
n/a = not available; GF = guaranteed freight; Pool = guaranteed pool
Sources: Transportation and Marketing Programs/AMS/USDA
Data from James B. Joiner Co., Tradewest Brokerage Co.

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, 2018	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	$121	$40.76	$1.11	4
	Grand Forks, ND	Duluth-Superior, MN	$4,268	$0	$42.38	$1.15	3
	Wichita, KS	Los Angeles, CA	$7,175	$0	$71.25	$1.94	2
	Wichita, KS	New Orleans, LA	$4,540	$214	$47.21	$1.28	2
	Sioux Falls, SD	Galveston-Houston, TX	$6,911	$0	$68.63	$1.87	2
	Northwest KS	Galveston-Houston, TX	$4,816	$234	$50.15	$1.36	2
	Amarillo, TX	Los Angeles, CA	$5,121	$326	$54.09	$1.47	5
Corn	Champaign-Urbana, IL	New Orleans, LA	$4,000	$241	$42.12	$1.07	4
	Toledo, OH	Raleigh, NC	$6,581	$0	$65.35	$1.66	4
	Des Moines, IA	Davenport, IA	$2,258	$51	$22.93	$0.58	1
	Indianapolis, IN	Atlanta, GA	$5,646	$0	$56.07	$1.42	4
	Indianapolis, IN	Knoxville, TN	$4,704	$0	$46.71	$1.19	4
	Des Moines, IA	Little Rock, AR	$3,609	$150	$37.33	$0.95	2
	Des Moines, IA	Los Angeles, CA	$5,327	$438	$57.24	$1.45	3
Soybeans	Minneapolis, MN	New Orleans, LA	$4,131	$246	$43.46	$1.18	16
	Toledo, OH	Huntsville, AL	$5,459	$0	$54.21	$1.48	3
	Indianapolis, IN	Raleigh, NC	$6,698	$0	$66.51	$1.81	4
	Indianapolis, IN	Huntsville, AL	$4,937	$0	$49.03	$1.33	4
	Champaign-Urbana, IL	New Orleans, LA	$4,745	$241	$49.52	$1.35	2
Shuttle Train							
Wheat	Great Falls, MT	Portland, OR	$4,078	$0	$40.50	$1.10	3
	Wichita, KS	Galveston-Houston, TX	$4,296	$0	$42.66	$1.16	3
	Chicago, IL	Albany, NY	$5,896	$0	$58.55	$1.59	4
	Grand Forks, ND	Portland, OR	$5,736	$0	$56.96	$1.55	2
	Grand Forks, ND	Galveston-Houston, TX	$6,056	$0	$60.14	$1.64	2
	Northwest KS	Portland, OR	$5,912	$384	$62.52	$1.70	4
Corn	Minneapolis, MN	Portland, OR	$5,180	$0	$51.44	$1.31	4
	Sioux Falls, SD	Tacoma, WA	$5,140	$0	$51.04	$1.30	4
	Champaign-Urbana, IL	New Orleans, LA	$3,800	$241	$40.13	$1.02	4
	Lincoln, NE	Galveston-Houston, TX	$3,880	$0	$38.53	$0.98	5
	Des Moines, IA	Amarillo, TX	$4,060	$189	$42.19	$1.07	4
	Minneapolis, MN	Tacoma, WA	$5,180	$0	$51.44	$1.31	4
	Council Bluffs, IA	Stockton, CA	$5,000	$0	$49.65	$1.26	4
Soybeans	Sioux Falls, SD	Tacoma, WA	$5,750	$0	$57.10	$1.55	3
	Minneapolis, MN	Portland, OR	$5,800	$0	$57.60	$1.57	3
	Fargo, ND	Tacoma, WA	$5,650	$0	$56.11	$1.53	3
	Council Bluffs, IA	New Orleans, LA	$4,775	$278	$50.18	$1.37	2
	Toledo, OH	Huntsville, AL	$4,634	$0	$46.02	$1.25	6
	Grand Island, NE	Portland, OR	$5,710	$393	$60.60	$1.65	3

[1]A unit train refers to shipments of at least 25 cars. Shuttle train rates are generally available for qualified shipments of 75-120 cars that meet railroad efficiency requirements.

[2]Approximate load per car = 111 short tons (100.7 metric tons): corn 56 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 calculated using tariff rate plus fuel surcharge

Sources: www.bnsf.com, www.cn.ca, www.csx.com, www.up.com

Table 8

Tariff Rail Rates for U.S. Bulk Grain Shipments to Mexico

Date:	November, 2018			Fuel			Percent
	Origin		Tariff	surcharge	Tariff plus surcharge per:		change[4]
Commodity	state	Destination region	rate/car[1]	per car[2]	metric ton[3]	bushel[3]	Y/Y
Wheat	MT	Chihuahua, CI	$7,284	$0	$74.43	$2.02	-2
	OK	Cuautitlan, EM	$6,743	$167	$70.61	$1.92	3
	KS	Guadalajara, JA	$7,371	$423	$79.64	$2.17	3
	TX	Salinas Victoria, NL	$4,329	$102	$45.27	$1.23	2
Corn	IA	Guadalajara, JA	$8,528	$387	$91.09	$2.31	4
	SD	Celaya, GJ	$7,880	$0	$80.51	$2.04	2
	NE	Queretaro, QA	$8,207	$351	$87.43	$2.22	4
	SD	Salinas Victoria, NL	$6,905	$0	$70.55	$1.79	2
	MO	Tlalnepantla, EM	$7,573	$342	$80.87	$2.05	4
	SD	Torreon, CU	$7,480	$0	$76.43	$1.94	2
Soybeans	MO	Bojay (Tula), HG	$8,284	$359	$88.31	$2.40	3
	NE	Guadalajara, JA	$8,842	$390	$94.33	$2.56	3
	IA	El Castillo, JA	$9,110	$0	$93.08	$2.53	2
	KS	Torreon, CU	$7,714	$288	$81.76	$2.22	4
Sorghum	NE	Celaya, GJ	$7,527	$358	$80.56	$2.04	4
	KS	Queretaro, QA	$8,000	$209	$83.87	$2.13	3
	NE	Salinas Victoria, NL	$6,633	$168	$69.48	$1.76	4
	NE	Torreon, CU	$6,962	$276	$73.95	$1.88	4

[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

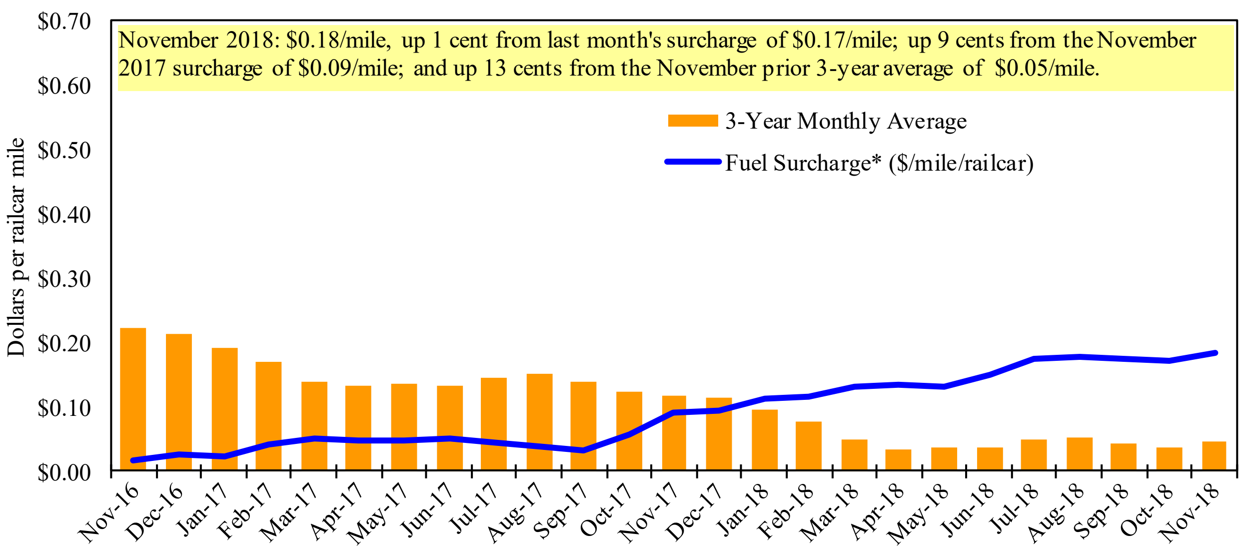
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

[4]Percentage change calculated using tariff rate plus fuel surchage

Sources: www.bnsf.com, www.uprr.com, www.kcsouthern.com

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.

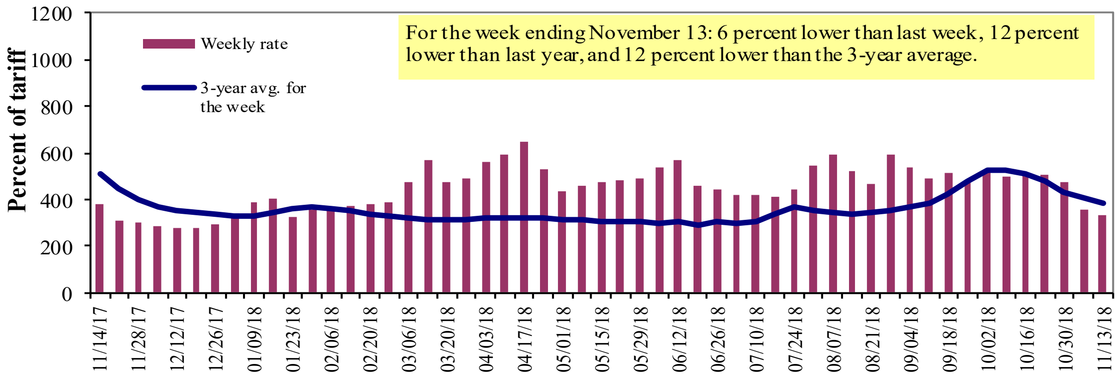
**CSX strike price changed from $2.00/gal. to $3.75/gal. starting January 1, 2015.

Sources: www.bnsf.com, www.cn.ca, www.cpr.ca, www.csx.com, www.kcsi.com, www.nscorp.com, www.uprr.com

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: Transportation & Marketing Programs/AMS/USDA

Table 9

Weekly Barge Freight Rates: Southbound Only

		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate[1]	11/13/2018	400	353	335	265	287	290	238
	11/6/2018	400	368	358	268	288	288	250
$/ton	11/13/2018	24.76	18.78	15.54	10.57	13.46	11.72	7.47
	11/6/2018	24.76	19.58	16.61	10.69	13.51	11.64	7.85
Current week % change from the same week:								
	Last year	-2	-4	-12	4	-39	-38	1
	3-year avg. [2]	-11	-10	-12	-7	-25	-24	-4
Rate[1]	December	-	-	350	260	292	292	240
	February	-	-	375	265	292	292	240

[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-week moving average; ton = 2,000 pounds; "-" n/a due to closure

Source: Transportation & Marketing Programs/AMS/USDA

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.

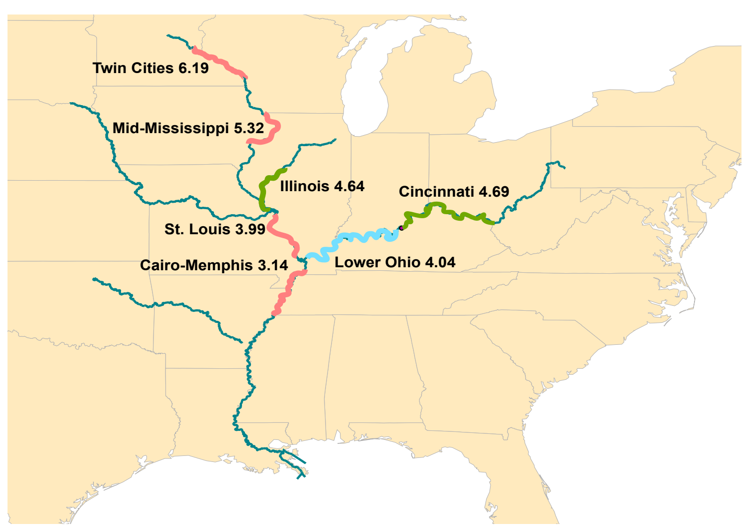
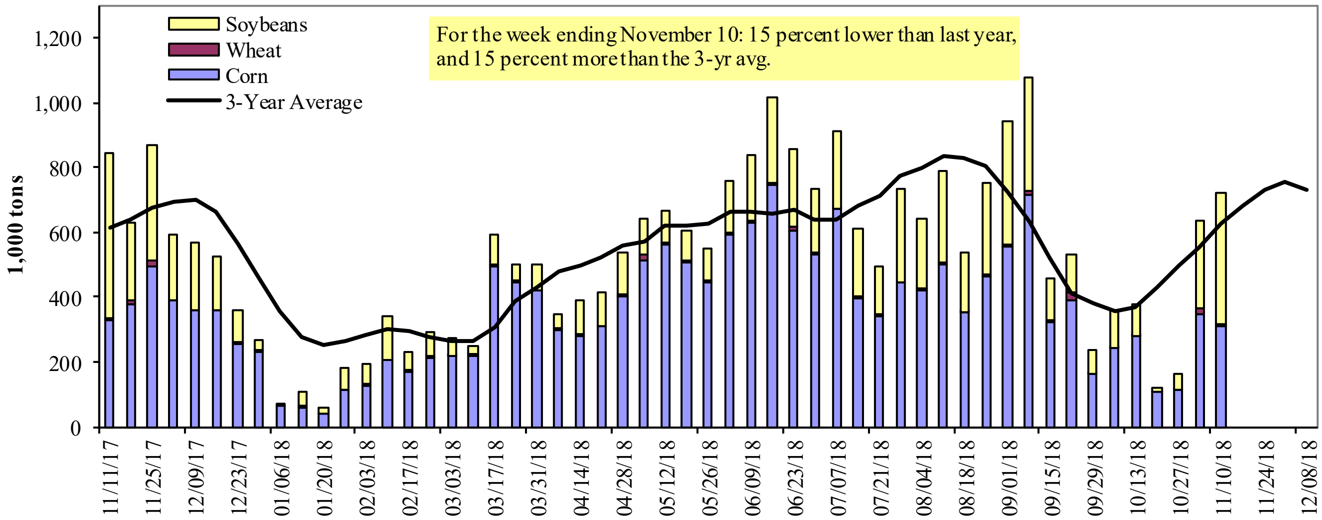


Figure 10

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 11/10/2018	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	149	8	288	0	445
Winfield, MO (L25)	243	0	369	0	612
Alton, IL (L26)	309	5	403	0	717
Granite City, IL (L27)	309	5	407	0	721
Illinois River (L8)	46	0	3	0	49
Ohio River (L52)	88	4	111	4	206
Arkansas River (L1)	0	17	29	0	46
Weekly total - 2018	398	25	547	4	973
Weekly total - 2017	385	8	690	21	1,103
2018 YTD[1]	20,374	1,491	10,747	101	32,713
2017 YTD	19,441	2,064	13,495	300	35,300
2018 as % of 2017 YTD	105	72	80	34	93
Last 4 weeks as % of 2017[2]	106	117	54	24	72
Total 2017	22,242	2,210	16,123	360	40,936

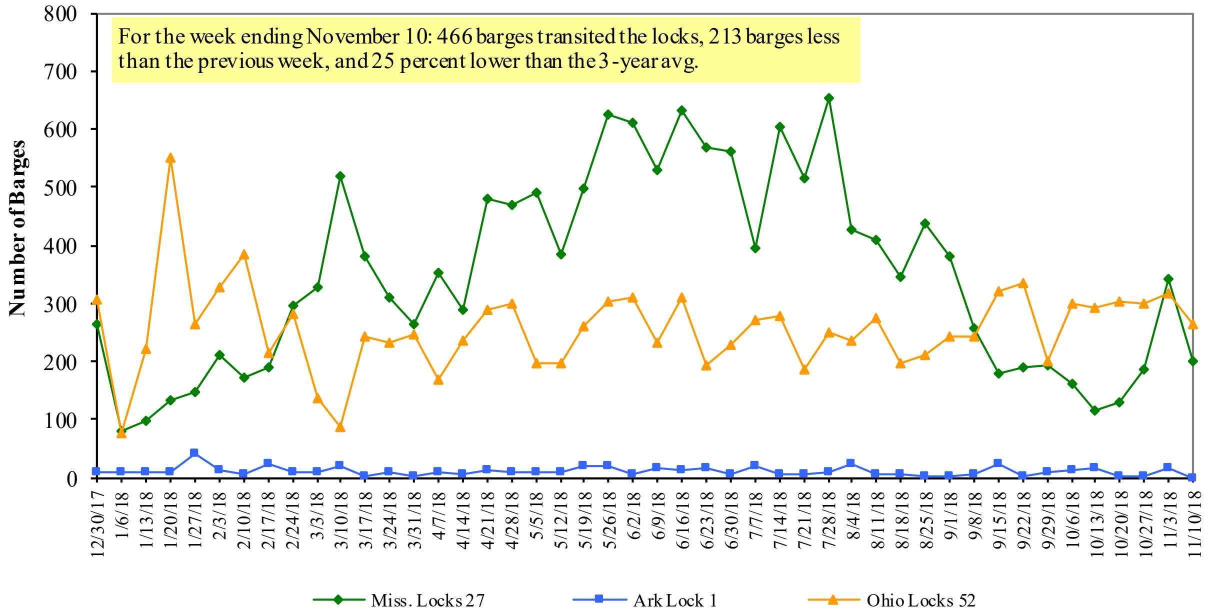
[1] Weekly total, YTD (year-to-date) and calendar year total includes Miss/27, Ohio/52, and Ark/1; "Other" refers to oats, barley, sorghum, and rye.

[2] As a percent of same period in 2017.

Note: Total may not add exactly, due to rounding.
Source: U.S. Army Corps of Engineers

Figure 11

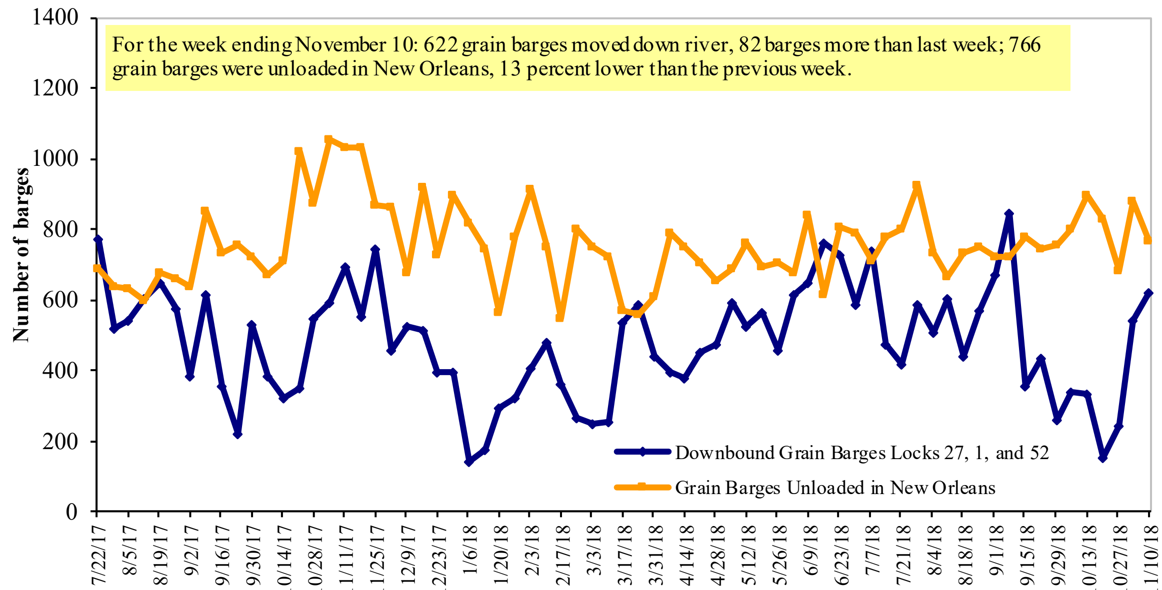
Upbound Empty Barges Transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Locks and Dam 52



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 GIPSA

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 11/12/2018 (US $/gallon)

Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.314	-0.015	0.430
	New England	3.356	-0.006	0.506
	Central Atlantic	3.483	-0.015	0.465
	Lower Atlantic	3.187	-0.018	0.392
II	Midwest[2]	3.262	-0.024	0.378
III	Gulf Coast[3]	3.085	-0.021	0.388
IV	Rocky Mountain	3.378	-0.020	0.386
V	West Coast	3.807	-0.026	0.417
	West Coast less California	3.514	-0.024	0.394
	California	4.040	-0.028	0.430
Total	U.S.	3.317	-0.021	0.402

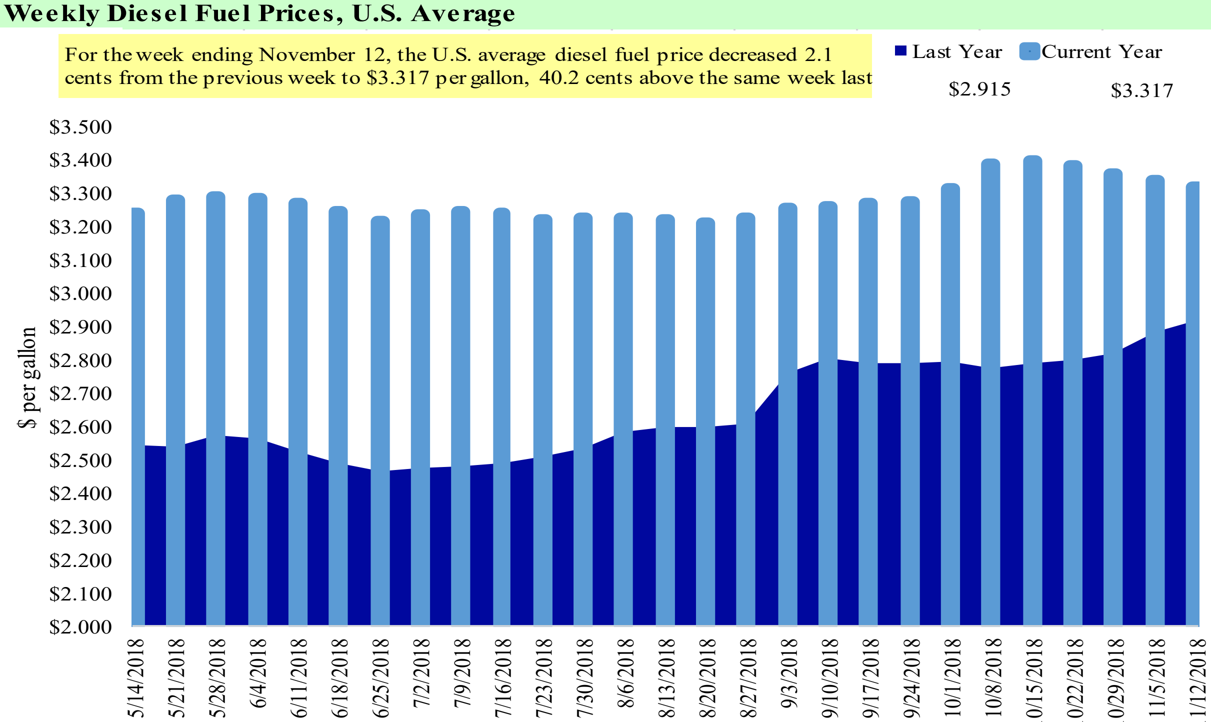
[1]Diesel fuel prices include all taxes. Prices represent an average of all types of diesel fuel.

[2]Same as North Central [3]Same as South Central

Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

Figure 13

Weekly Diesel Fuel Prices, U.S. Average



Source: Retail On-Highway Diesel Prices, Energy Information Administration, Dept. of Energy

Grain Exports

Table 12

U.S. Export Balances and Cumulative Exports (1,000 metric tons)

For the week ending	Wheat HRW	Wheat SRW	Wheat HRS	Wheat SWW	Wheat DUR	All wheat	Corn	Soybeans	Total
Export Balances[1]									
11/1/2018	1,461	646	1,826	1,087	146	5,166	11,933	13,216	30,314
This week year ago	1,937	523	1,701	1,257	59	5,477	13,663	16,772	35,911
Cumulative exports-marketing year[2]									
2018/19 YTD	2,493	1,036	2,591	2,236	243	8,599	10,601	8,623	27,823
2017/18 YTD	4,331	1,013	2,851	2,419	201	10,815	5,730	14,707	31,251
YTD 2018/19 as % of 2017/18	58	102	91	92	121	80	185	59	89
Last 4 wks as % of same period 2017/18	71	117	98	83	209	88	94	86	89
2017/18 Total	9,150	2,343	5,689	4,854	384	22,419	57,209	56,214	135,842
2016/17 Total	11,096	2,285	7,923	4,254	484	26,042	41,864	51,156	119,062

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

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

Note: YTD = year-to-date. Marketing Year: wheat = 6/01-5/31, corn & soybeans = 9/01-8/31

Source: Foreign Agricultural Service/USDA (www.fas.usda.gov)

Table 13

Top 5 Importers[1] of U.S. Corn

For the week ending 11/01/2018	Total Commitments[2] 2018/19 Current MY	Total Commitments[2] 2017/18 Last MY	% change current MY from last MY	Exports[3] 3-year avg 2015-2017
	- 1,000 mt -			
Mexico	7,361	8,344	(12)	13,691
Japan	3,751	2,618	43	11,247
Korea	1,941	869	123	4,754
Colombia	770	1,074	(28)	4,678
Peru	753	803	(6)	2,975
Top 5 Importers	**14,576**	**13,707**	**6**	**37,344**
Total US corn export sales	**22,534**	**19,393**	**16**	**53,184**
% of Projected	36%	31%		
Change from prior week[2]	**701**	**2,365**		
Top 5 importers' share of U.S. corn export sales	65%	71%		70%
USDA forecast, November 2018	**62,341**	**62,036**	**0**	
Corn Use for Ethanol USDA forecast, November 2018	**143,510**	**142,266**	**1**	

(n) indicates negative number.

[1]Based on FAS Marketing Year Ranking Reports for 2017/18 - www.fas.usda.gov; Marketing year (MY) = Sep 1 - Aug 31.

[2]Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query--http://www.fas.usda.gov/esrquery/. 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 - http://apps.fas.usda.gov/export-sales/myrkaug.htm; 3-yr average

Table 14

Top 5 Importers[1] of U.S. Soybeans

For the week ending 11/01/2018	Total Commitments[2] 2018/19 Current MY	2017/18 Last MY	% change current MY from last MY	Exports[3] 3-yr avg. 2015-2017
	- 1,000 mt -			- 1,000 mt -
China	977	17,126	(94)	31,228
Mexico	3,295	1,633	102	3,716
Indonesia	710	683	4	2,250
Japan	801	851	(6)	2,145
Netherlands	606	338	79	2,209
Top 5 importers	**6,388**	**20,631**	**(69)**	**41,549**
Total US soybean export sales	**21,839**	**31,478**	**(31)**	**55,113**
% of Projected	42%	54%		
Change from prior week[2]	**388**	**1,161**		
Top 5 importers' share of U.S. soybean export sales	29%	66%		**75%**
USDA forecast, November 2018	**51,771**	**58,011**	**89**	

(n) indicates negative number.

[1]Based on FAS Marketing Year Ranking Reports for 2017/18 - www.fas.usda.gov; Marketing year (MY) = Sep 1 - Aug 31.
[2]Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query--
http://www.fas.usda.gov/esrquery/. The total commitments change (net sales) from prior week could include reivisions from previous week's outstanding sales and/or accumulated sales
[3] FAS Marketing Year Final Reports - www.fas.usda.gov/export-sales/myfi_rpt.htm. (Carryover plus Accumulated Exports)

Table 15

Top 10 Importers[1] of All U.S. Wheat

For the week ending 11/01/2018	Total Commitments[2] 2018/19 Current MY	2017/18 Last MY	% change current MY from last MY	Exports[3] 3-yr avg 2015-2017
	- 1,000 mt -			- 1,000 mt -
Mexico	1,588	1,996	(20)	2,781
Japan	1,709	1,663	3	2,649
Philippines	2,130	1,977	8	2,441
Korea	932	1,142	(18)	1,257
Nigeria	628	816	(23)	1,254
Indonesia	540	690	(22)	1,076
Taiwan	605	745	(19)	1,066
China	0	782	(100)	944
Colombia	363	201	80	714
Thailand	538	440	22	618
Top 10 importers	**9,033**	**10,452**	(14)	**14,800**
Total US wheat export sales	**13,765**	**16,291**	**(16)**	**22,869**
% of Projected	49%	66%		
Change from prior week[2]	**661**	**782**		
Top 10 importers' share of U.S. wheat export sales	66%	64%		65%
USDA forecast, November 2018	**27,929**	**24,550**	**14**	

(n) indicates negative number.

[1] Based on FAS Marketing Year Ranking Reports for 2017/18 - www.fas.usda.gov; Marketing year = Jun 1 - May 31.
[2] Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query--
http://www.fas.usda.gov/esrquery/. 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 - www.fas.usda.gov/export-sales/myfi_rpt.htm.

Table 16

Grain Inspections for Export by U.S. Port Region (1,000 metric tons)

Port Regions	For the Week Ending 11/08/18	Previous Week*	Current Week as % of Previous	2018 YTD*	2017 YTD*	2018 YTD as % of 2017 YTD	Last 4-weeks as % of: Last Year	Prior 3-yr. avg.	2017 Total*
Pacific Northwest									
Wheat	201	199	101	11,205	13,081	86	158	165	14,805
Corn	418	384	109	17,959	10,258	175	n/a	n/a	10,928
Soybeans	151	136	111	7,391	9,927	74	22	21	13,246
Total	**770**	**718**	**107**	**36,555**	**33,266**	**110**	**72**	**68**	**38,978**
Mississippi Gulf									
Wheat	57	72	80	3,425	3,885	88	93	103	4,198
Corn	514	672	76	30,125	26,058	116	161	148	28,690
Soybeans	938	887	106	22,957	26,085	88	65	62	32,911
Total	**1,509**	**1,631**	**93**	**56,506**	**56,028**	**101**	**85**	**81**	**65,800**
Texas Gulf									
Wheat	98	33	294	2,643	5,762	46	136	105	6,354
Corn	37	0	n/a	702	700	100	276	118	733
Soybeans	0	0	n/a	69	219	31	0	0	292
Total	**135**	**33**	**404**	**3,413**	**6,680**	**51**	**77**	**47**	**7,379**
Interior									
Wheat	4	30	15	1,395	1,531	91	152	113	1,727
Corn	148	199	74	7,692	7,611	101	119	132	8,758
Soybeans	102	170	60	5,913	4,727	125	94	100	5,508
Total	**255**	**399**	**64**	**15,000**	**13,870**	**108**	**107**	**114**	**15,993**
Great Lakes									
Wheat	0	25	0	698	596	117	64	53	711
Corn	0	0	n/a	404	173	233	n/a	229	192
Soybeans	36	81	44	935	715	131	92	73	890
Total	**36**	**106**	**34**	**2,037**	**1,485**	**137**	**99**	**76**	**1,793**
Atlantic									
Wheat	0	0	n/a	69	46	150	0	0	46
Corn	0	7	0	124	28	446	144	29	32
Soybeans	112	4	n/a	1,708	1,409	121	55	58	2,001
Total	**112**	**12**	**974**	**1,901**	**1,483**	**128**	**57**	**51**	**2,079**
U.S. total from ports*									
Wheat	360	358	100	19,434	24,901	78	135	127	27,841
Corn	1,117	1,262	88	57,005	44,828	127	205	186	49,333
Soybeans	1,340	1,279	105	38,973	43,082	90	52	50	54,847
Total	**2,816**	**2,899**	**97**	**115,412**	**112,811**	**102**	**83**	**78**	**132,021**

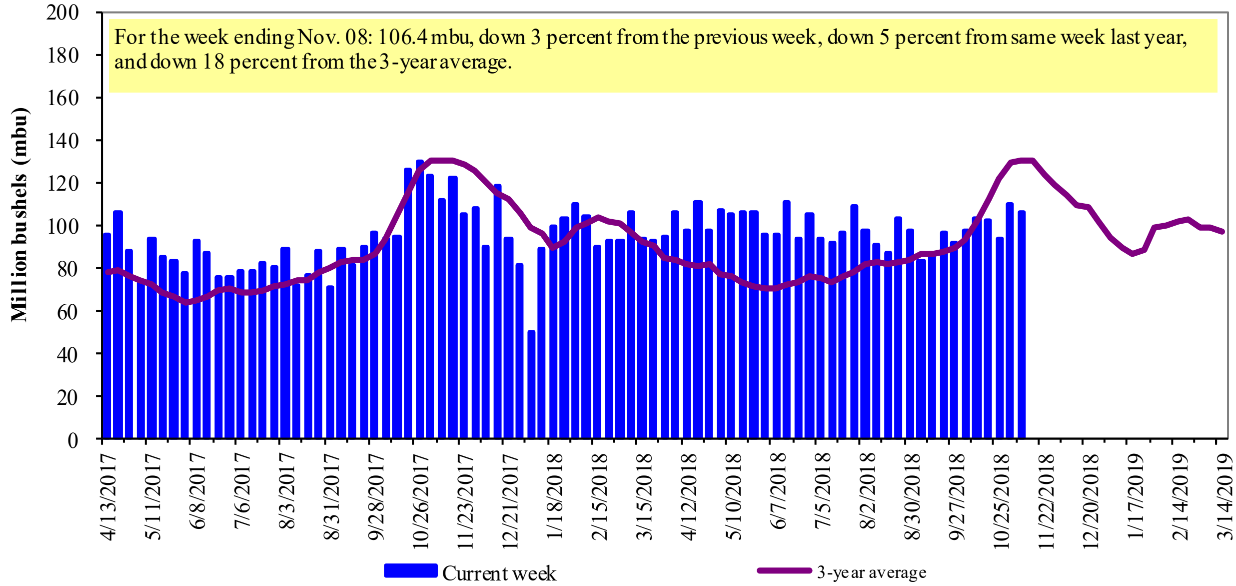
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov); YTD= year-to-date; n/a = not applicable

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 2017.

Figure 14

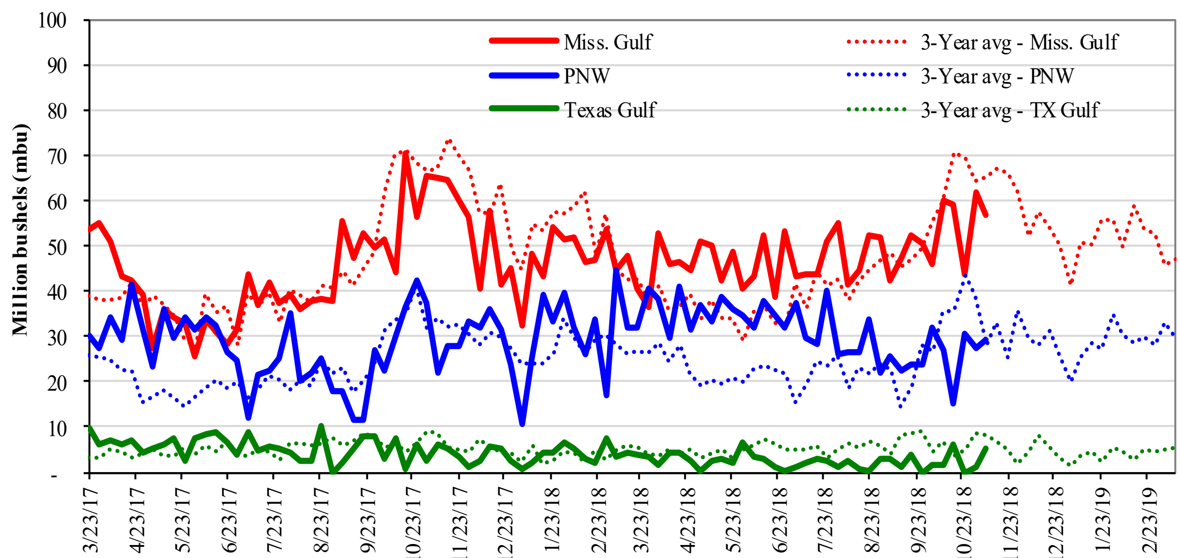
U.S. grain inspected for export (wheat, corn, and soybeans)



Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov)
Note: 3-year average consists of 4-week running average

Figure 15

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



Week ending 11/08/18 inspections (mbu):		Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Mississippi Gulf:	56.8	Last Week:	down 8	up 312	down 2	up 7
PNW:	29.4	Last Year (same week):	down 13	down 19	down 13	up 33
Texas Gulf:	5.1	3-yr avg. (4-wk. mov. Avg):	down 16	down 22	down 16	down 20

Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov)

Ocean Transportation

Table 17

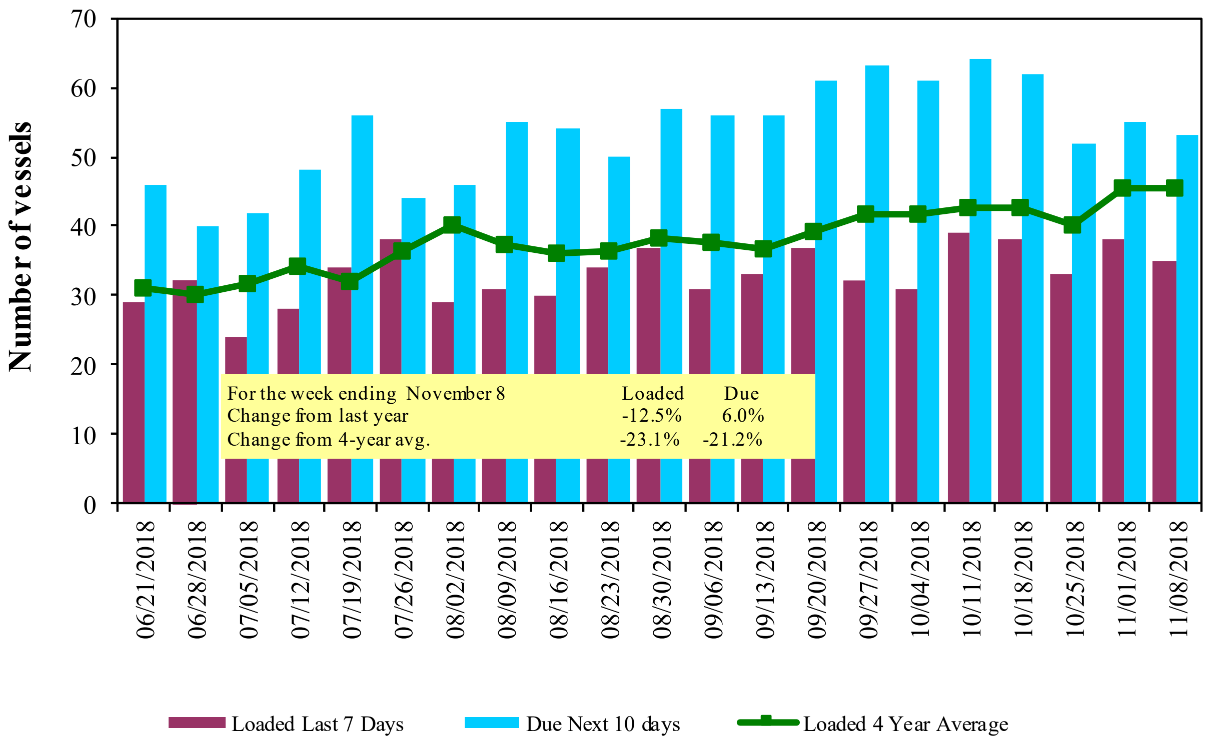
Weekly Port Region Grain Ocean Vessel Activity (number of vessels)

	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
11/8/2018	47	35	53	14
11/1/2018	48	38	55	9
2017 range	(25..66)	(28..54)	(37..87)	(5..44)
2017 avg.	46	38	56	20

Source: Transportation & Marketing Programs/AMS/USDA

Figure 16

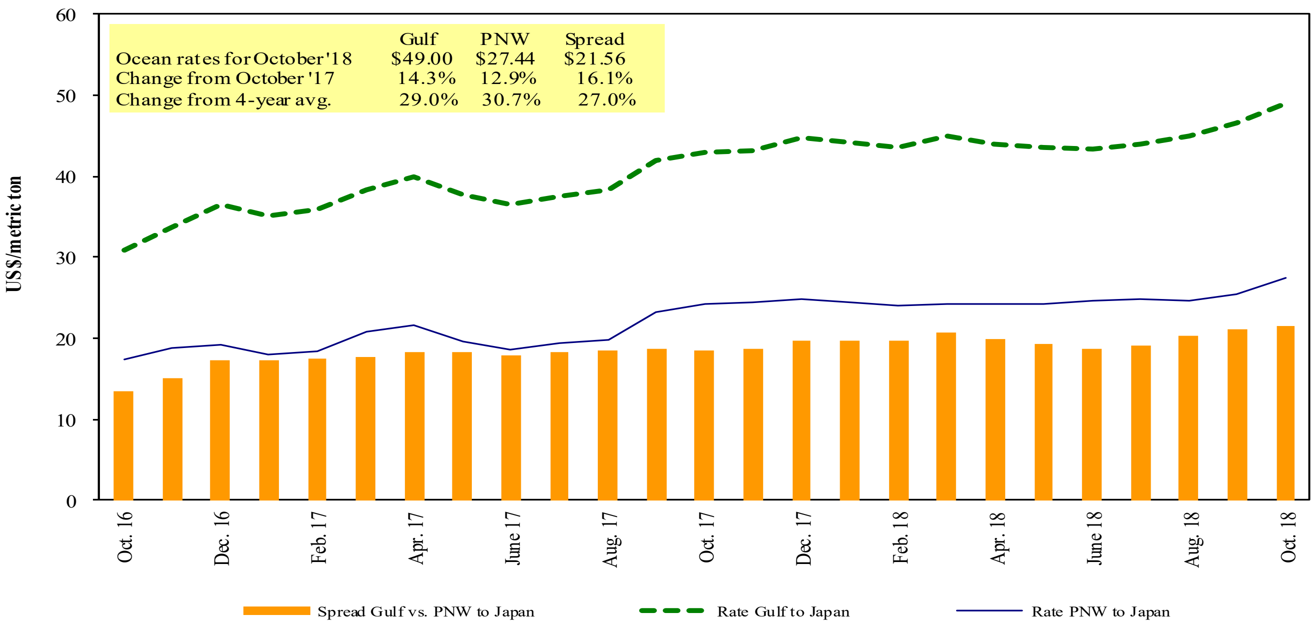
U.S. Gulf Vessel Loading Activity



Source: Transportation & Marketing Programs/AMS/USDA
[1]U.S. Gulf includes Mississippi, Texas, and East Gulf.

Figure 17

Grain Vessel Rates, U.S. to Japan



Data Source: O'Neil Commodity Consulting

Table 18

Ocean Freight Rates For Selected Shipments, Week Ending 11/10/2018

Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US$/metric ton)
U.S. Gulf	Pt. Sudan	Sorghum	Dec 7/17	30,430	71.88*
U.S. Gulf	Djibouti	Wheat	Nov 2/12	21,470	85.44*
U.S. Gulf	Djibouti	Wheat	Oct 1/15	25,340	77.65*
U.S. Gulf	Honduras	Soybean Meal	Oct 1/10	12,500	85.00*
PNW	Taiwan	Heavy Grain	Sep 15/Oct 31	63,000	25.00
Brazil	China	Heavy Grain	Nov 20/30	60,000	38.00
Brazil	China	Heavy Grain	Nov 1/10	60,000	34.00
Brazil	China	Heavy Grain	Oct 5/15	60,000	33.75
Brazil	China	Heavy Grain	Sep 25/30	60,000	34.50
Brazil	China	Heavy Grain	Sep 10/20	60,000	35.75
Brazil	China	Heavy Grain	Aug 21/30	60,000	36.00
Brazil	China	Heavy Grain	Aug 18/28	60,000	36.00
Brazil	Malaysia	Heavy Grain	Aug 17/24	65,000	31.00
Brazil	S.Korea	Heavy Grain	Nov 5/10	66,000	43.00

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

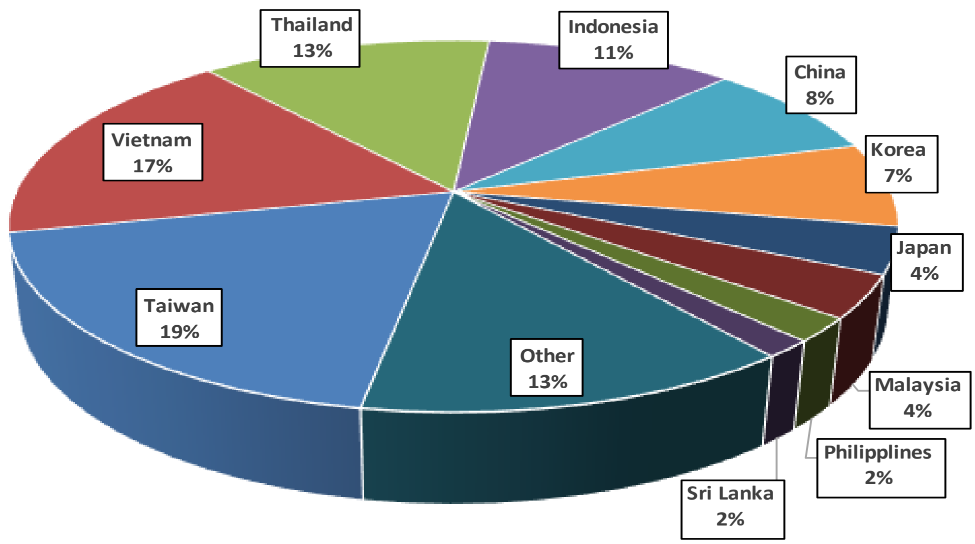
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

Source: Maritime Research Inc. (www.maritime-research.com)

In 2017, containers were used to transport 7 percent of total U.S. waterborne grain exports. Approximately 62 percent of U.S. waterborne grain exports in 2017 went to Asia, of which 10 percent were moved in containers. Approximately 93 percent of U.S. waterborne containerized grain exports were destined for Asia.

Figure 18

Top 10 Destination Markets for U.S. Containerized Grain Exports, January-May 2018

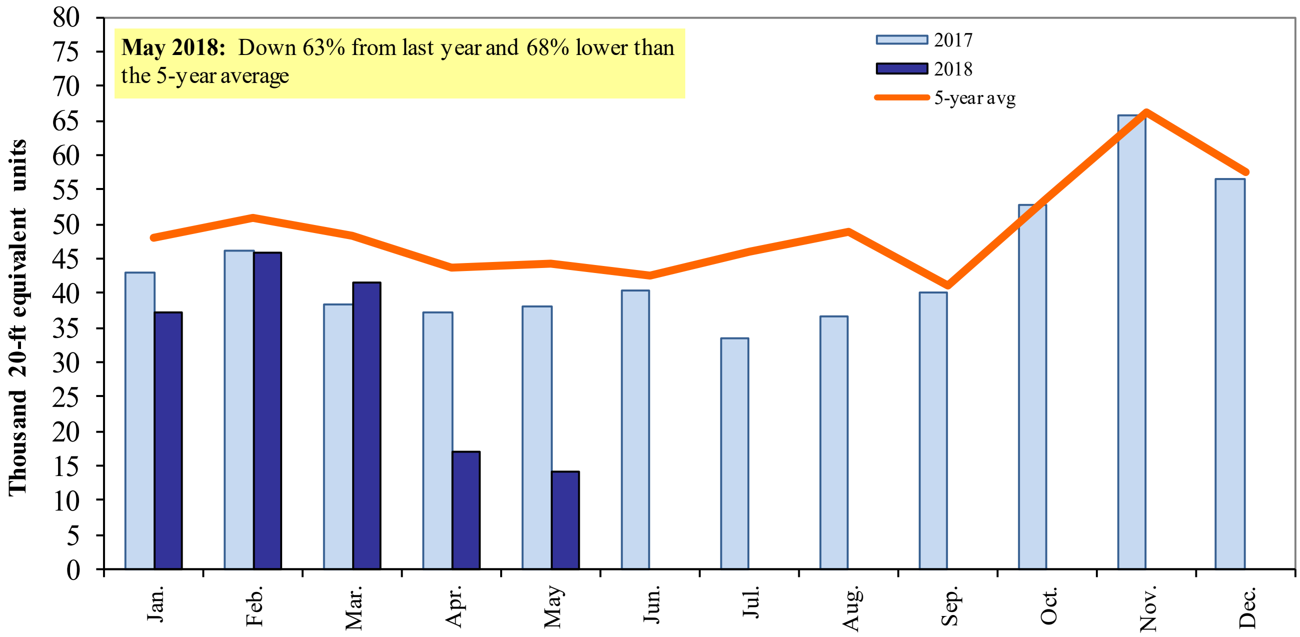


Service (PIERS) data

Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 100190, 100200, 100300, 100400, 100590, 100700, 110100, 230310, 110220, 110290, 120100, 230210, 230990, 230330, and 120810.

Figure 19

Monthly Shipments of Containerized Grain to Asia



Source: USDA/Agricultural Marketing Service/Transportation Services Division analysis of Port Import Export Reporting Service (PIERS) data.

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.

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