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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Contents

The next release is November 23, 2017

WEEKLY HIGHLIGHTS

River Traffic Up as Harvest Nears Completion

During the last half of November, barge movements typically increase as the corn and soybean harvests near completion and barges depart from the northern most reaches of the soon-to-be-closed Upper Mississippi River because of winter ice. For the week ending November 11, 695 grain barges passed downbound on the locking sections of the Mississippi, Ohio, and Arkansas Rivers, for a total tonnage of 1.1 million tons. This was the highest weekly amount of barges on the locking portions of the river system since July. Recent high water levels and repair work at Ohio River Locks and Dam (L&D) 52 have caused significant delays for downbound grain barges, as well as upbound empty barges on the Ohio River. Barge traffic will likely continue at high seasonal levels as navigation conditions at L&D 52 have improved. In addition, as of November 12, the soybean harvest is 93 percent complete as compared to the 2012-2016 average of 95 percent) and the corn harvest crop is 83 percent completed as compared to a 91 percent average.

Study Analyzes Economic Impact of Grain Exports

A recent study commissioned by the U.S. Grains Council and the National Corn Growers Association (NCGA)—and conducted by Informa Economics—looked at the economic benefits of grain exports on the U.S. economy. According to the study, U.S. grain and grain products exports were worth $18.9 billion, supported $55.5 billion in economic output, and were linked to 262,000 jobs in 2015. The study examined the economic contributions to each State and 52 congressional districts from exports of corn, barley, sorghum, ethanol, distiller's dried grains, and other grain products. The study showed that every $1 of grain exports supported an additional $2.19 in business sales, and every job created by these exports supported an additional 4.7 jobs in the United States. According to NCGA President and North Dakota farmer, Kevin Skunes, "By analyzing the impacts to individual States and congressional districts, constituents and legislators alike can better understand how their local communities benefit from and depend on exports."

Grain Inspections Continue to Decrease

For the week ending November 9, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions reached 2.88 million metric tons (mmt), down 13 percent from the previous week, down 28 percent from the same time last year, and 18 percent below the 3-year average. Total inspections of corn and soybeans were down 18 and 14 percent, respectively, from the previous week. Wheat inspections, however, increased 6 percent from the past week. Mississippi Gulf grain inspections decreased 6 percent from the past week, and Pacific Northwest (PNW) inspections dropped 41 percent. Outstanding (unshipped) export sales continued to increase for wheat and corn, but sales decreased for soybeans.

Snapshots by Sector

Export Sales

For the week ending November 2, **unshipped balances** of wheat, corn, and soybeans totaled 35.9 mmt, down 16 percent from the same time last year. Net weekly **wheat export sales** were .782 mmt, up 125 percent from the previous week. Net **corn export sales** were 2.37 mmt, up 191 percent from the previous week, and net **soybean export sales** were 1.16 mmt for the same period, down 42 percent from the previous week.

Rail

U.S. Class I railroads originated 23,281 **grain carloads** for the week ending November 4, up 3 percent from the previous week, down 19 percent from last year, and down 8 percent from the 3-year average.

Average November shuttle **secondary railcar** bids/offers per car were $175 below tariff for the week ending November 9, up $70 from last week, and $188 lower than last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending November 11, **barge grain movements** totaled 1,103,032 tons, 14 percent higher than the previous week, and down 16 percent from the same period last year.

For the week ending November 11, 695 grain barges **moved down river**, up 17 percent from last week. 1,031 grain barges were **unloaded in New Orleans**, down 2 percent from the previous week.

Ocean

For the week ending November 9, 40 **ocean-going grain vessels** were loaded in the Gulf, 22 percent less than the same period last year. Fifty vessels are expected to be loaded within the next 10 days, 38 percent less than the same period last year.

For the week ending November 9, the ocean freight rate for shipping bulk grain from the Gulf to Japan was $43.00 per metric ton, unchanged from the previous week. The cost of shipping from the PNW to Japan was $24.50 per metric ton, unchanged from the previous week.

Fuel

During the week ending November 13, average **diesel fuel prices** increased 3 cents from the previous week to $2.92 per gallon, 47 cents above the same week last year.

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Web: **http://dx.doi.org/10.9752/TS056.11-16-2017**

Feature Article/Calendar

Transportation and Landed Costs to Mexico Up for Soybeans and Wheat, but Mixed for Corn

The landed costs of shipping soybeans and wheat to Mexico by water were pushed up by increased transportation costs and farm values during the third quarter. However, a reduction in farm values during the quarter pushed down the landed costs for shipping corn to Mexico. The landed costs of soybeans and wheat increased by 2 and 6 percent, respectively, for both the sea and land routes from the previous quarter (see table below). The landed costs of seaborne corn decreased by 1 percent and decreased by 2 percent for shipment by land. The transportation costs for seaborne soybeans was mainly due to an increase in truck and barge rates. Due to an increase in seasonal freight demand, truck and barge rates saw an uptick during the quarter.

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

	Water route (to Veracruz) $/metric ton					Land route (to Guadalajara) $/metric ton				
	2016 3rd qtr.	2017 2nd qtr.	2017 3rd qtr.	Percent change Yr. to Yr.	Percent change Qtr. to Qtr.	2016 3rd qtr.	2017 2nd qtr.	2017 3rd qtr.	Percent change Yr. to Yr.	Percent change Qtr. to Qtr.
Corn										
Origin			IL					IA		
Truck	10.58	12.30	13.02	23.1	5.9	3.14	4.30	4.00	27.4	-7.0
Rail [1]						84.04	85.85	85.68	2.0	-0.2
Barge	21.12	13.76	17.75	-16.0	29.0					
Ocean[2]	13.20	12.95	12.98	-1.7	0.2					
Total transportation cost[3]	44.90	39.01	43.75	-2.6	12.2	87.18	90.15	89.68	2.9	-0.5
Farm Value[4]	132.15	138.84	132.80	0.5	-4.4	127.16	132.28	128.60	1.1	-2.8
Landed Cost[5]	177.05	177.85	176.55	-0.3	-0.7	214.34	222.43	218.28	1.8	-1.9
Transport % of landed cost	25	22	25			41	41	41		
Soybeans										
Origin			IL					NE		
Truck	10.58	12.30	13.02	23.1	5.9	3.14	4.30	4.00	27.4	-7.0
Rail						94.36	93.71	93.53	-0.9	-0.2
Barge	21.12	13.76	17.75	-16.0	29.0					
Ocean	13.20	12.95	12.98	-1.7	0.2					
Total transportation cost	44.90	39.01	43.75	-2.6	12.2	97.50	98.01	97.53	0.0	-0.5
Farm Value	372.34	347.11	351.27	-5.7	1.2	353.84	325.06	332.65	-6.0	2.3
Landed Cost	417.24	386.12	395.02	-5.3	2.3	451.34	423.07	430.18	-4.7	1.7
Transport % of landed cost	11	10	11			22	23	23		
Wheat										
Origin			KS					KS		
Truck	3.14	4.30	4.00	27.4	-7.0	3.14	4.30	4.00	27.4	-7.0
Rail	38.28	40.76	41.42	8.2	1.6	72.41	76.47	77.19	6.6	0.9
Ocean	13.20	12.95	12.98	-1.7	0.2					
Total transportation cost	54.62	58.01	58.40	6.9	0.7	75.55	80.77	81.19	7.5	0.5
Farm Value	111.09	134.36	146.36	31.7	8.9	111.09	134.36	146.36	31.7	8.9
Landed Cost	165.71	192.37	204.76	23.6	6.4	186.64	215.13	227.55	21.9	5.8
Transport % of landed cost	33	30	29			40	38	36		

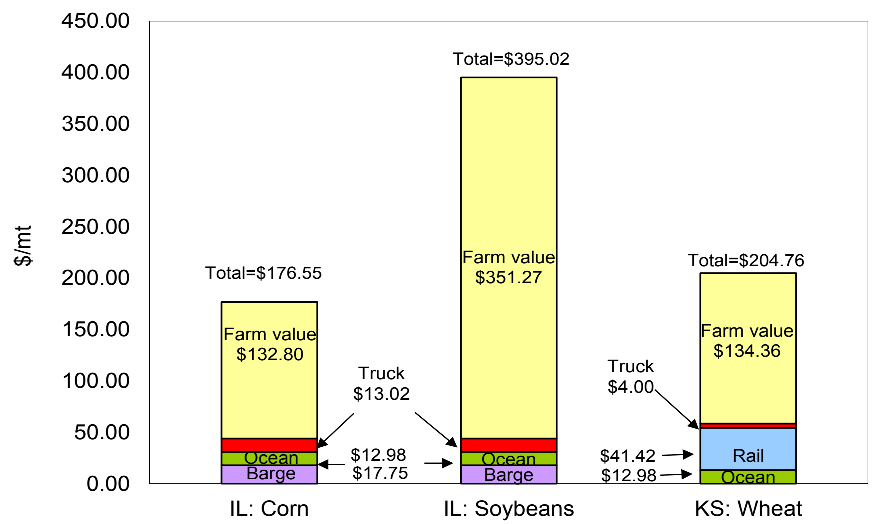
[1]Rail rates include U.S. and Mexico portions of the movement. Mexico rail rates are estimated based on actual quoted market rates. BNSF and Union Pacific quoted rail tariff rates are through rates for shuttle trains.
Rail rates include fuel surcharges, but do not include the cost of purchasing empty rail cars in the secondary market, which could exceed the rail tariff rate plus fuel surcharge shown in the table. Origins are modified from past tables. Rail rates for the water route were revised from previous estimates
[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

The transportation costs of moving corn and soybeans by land decreased 1 percent, while the cost of moving wheat both by sea and land increased by 1 percent. With projected near-record U.S. corn production for 2017/18 and increased world supply, corn prices have dropped, resulting in lower landed costs for corn transported by both sea and land routes. On the other hand, soybean and wheat prices increased, pushing up their landed costs. The landed costs for the water route ranged from $177 to $395 per metric ton (mt) (see table and Figure 1) and $218 to $430 per mt for the land route (see table and

Figure 2). The transportation share of the landed costs for the water route ranged from 11 to 29 percent and 23 to 41 percent for the land route. Year-to-year changes in transportation costs, farm values, and landed costs were mixed across the grain types and transportation routes. While year-to-year transportation and landed costs decreased for seaborne corn and soybeans, they increased for seaborne wheat. As for the land route, year-to-year transportation and landed costs increased for corn and wheat, but the landed cost for shipping soybeans decreased over the year.

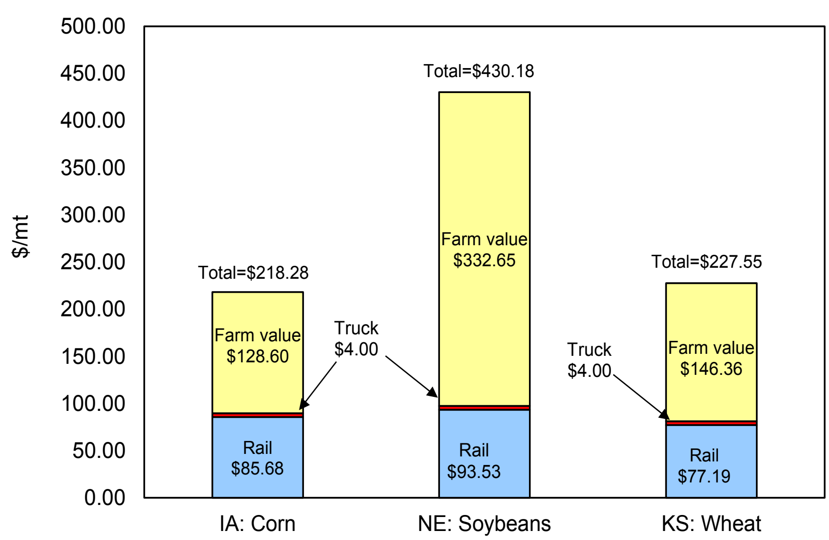
Market Analysis and Outlook: From July to September of 2017, Mexico imported 4.08 million metric tons (mmt) of corn, 1.04 mmt of soybeans, and 0.88 mmt of wheat—16, 34, and 31 percent more than the same period a year ago, respectively. The total value of corn, soybean, and wheat imports was $0.73 million, $0.41 million, and $1.33 million, respectively. According to USDA's Foreign Agricultural Service (USDA-FAS), Mexico's corn imports from the United States for marketing year (MY) 2017/18 are estimated at 15.33 mmt ([USDA-FAS GAIN Report #:MX7031]()). However, on November 2, FAS reported export sales of 1.36 mmt of corn for delivery to Mexico, making it the tenth largest daily corn sale on record since 1977. Mexico's oilseed imports are expected to grow modestly due to growth in demand for oil from the hotel, restaurant, and institutional sectors and for meal from the livestock sector ([USDA-FAS GAIN Report: MX7011]()). The United States is expected to continue to be the main supplier of oilseeds, especially soybeans, to Mexico. Given the uncertainty over the future of the North American Free Trade Agreement (NAFTA), Mexico has reached a phytosanitary agreement to import wheat from Argentina in an attempt to diversify its trading partners([USDA-FAS GAIN Report #: MX 7046]()). Despite Mexico's trade diversification efforts, some industry observers still believe grain imports from the United States will continue with or without NAFTA ([USDA-FAS GAIN Report #: MX 7046]()).
surajudeen.olowolayemo@ams.usda.gov

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

Grain Transportation Indicators

Table 1

Grain Transport Cost Indicators[1]

	Truck	Rail		Barge	Ocean	
For the week ending		Unit Train	Shuttle		Gulf	Pacific
11/15/17	196	262	207	211	192	174
11/08/17	193	259	204	222	192	174

[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	11/9/2017	11/3/2017
Corn	IL--Gulf	-0.65	-0.68
Corn	NE--Gulf	-0.79	-0.77
Soybean	IA--Gulf	-1.06	-1.01
HRW	KS--Gulf	-2.75	-2.82
HRS	ND--Portland	-1.83	-1.82

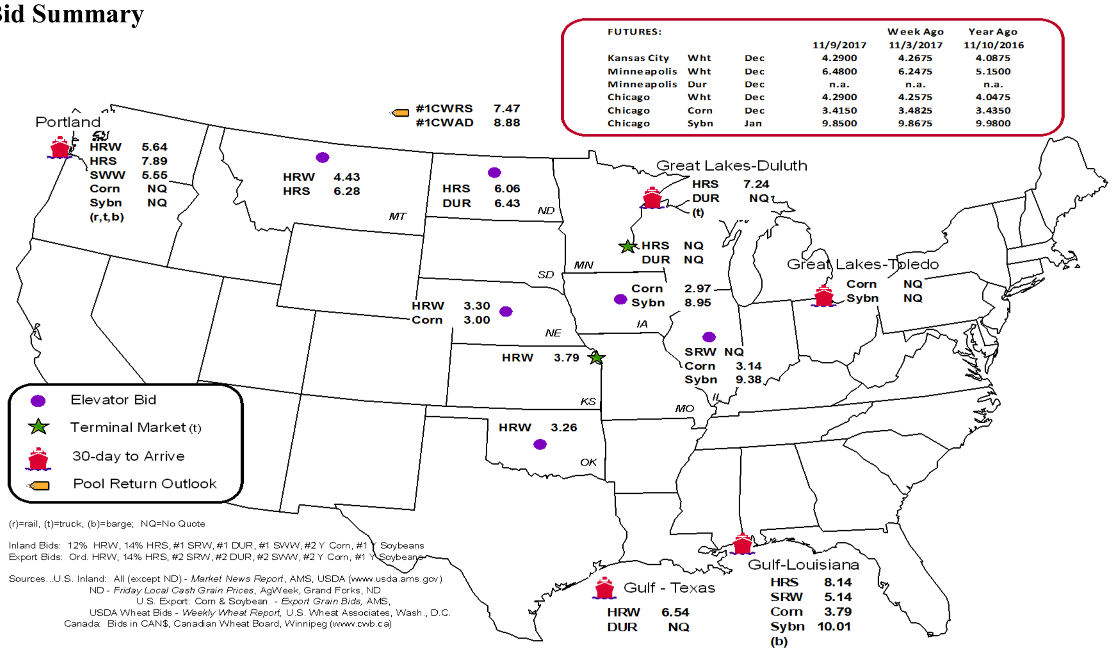
Note: nq = no quote; n/a = not available

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]
11/08/2017[p]	336	1,004	5,847	893	8,080	11/4/2017	2,102
11/01/2017[r]	1,007	714	8,014	1,268	11,003	10/28/2017	1,584
2017 YTD[r]	25,943	68,521	246,424	19,236	360,124	2017 YTD	104,692
2016 YTD[r]	30,311	72,078	251,622	21,143	375,154	2016 YTD	92,787
2017 YTD as % of 2016 YTD	86	95	98	91	96	% change YTD	113
Last 4 weeks as % of 2016[2]	47	43	89	75	75	Last 4wks % 2016	95
Last 4 weeks as % of 4-year avg.[2]	52	61	98	89	85	Last 4wks % 4 yr	101
Total 2016	36,925	86,992	299,932	28,728	452,577	Total 2016	92,982
Total 2015	29,054	60,819	239,029	26,730	355,632	Total 2015	97,736

[1] Data is incomplete as it is voluntarily provided

[2] Compared with same 4-weeks in 2016 and prior 4-year average.

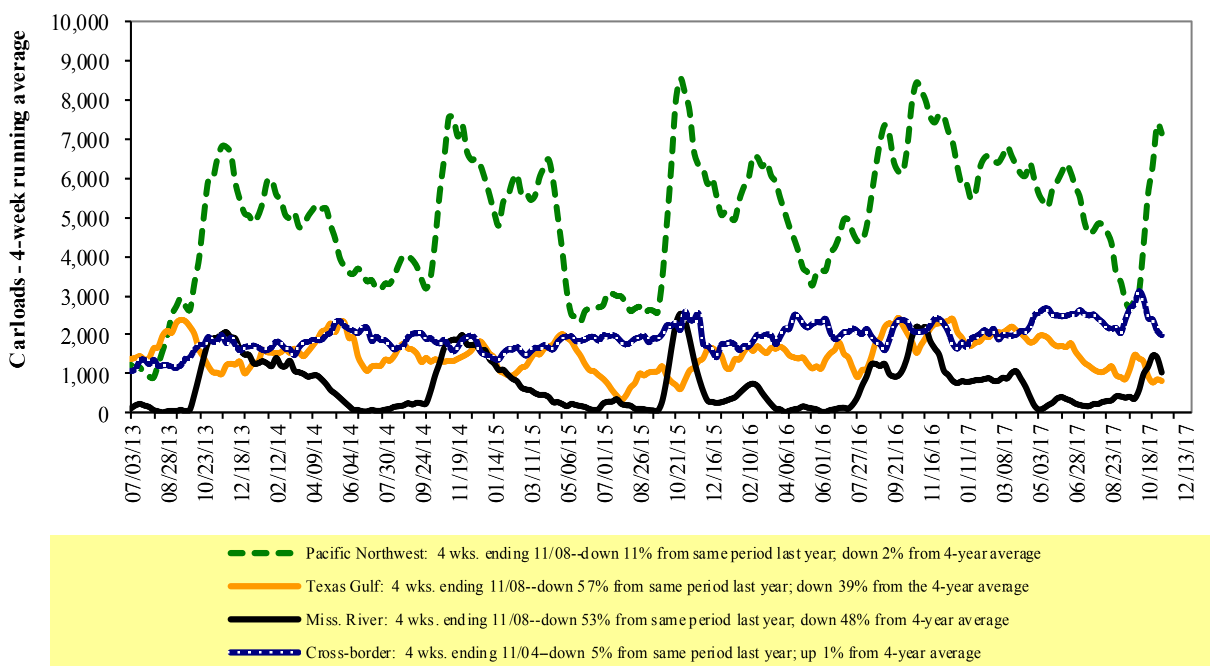
[3] Cross-border weekly data is approximately 15 percent below the Association of American Railroads' reported weekly carloads received by Mexican railroads to reflect switching between KCSM and FerroMex.

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:	East		West			U.S. total	Canada	
11/4/2017	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	2,275	3,132	11,290	1,069	5,515	23,281	4,707	5,207
This week last year	2,658	4,510	13,592	736	7,161	28,657	5,193	5,310
2017 YTD	74,871	121,282	487,141	43,048	249,906	976,248	168,165	205,732
2016 YTD	79,934	126,227	494,176	38,415	253,066	991,818	159,890	195,938
2017 YTD as % of 2016 YTD	94	96	99	112	99	98	105	105
Last 4 weeks as % of 2016*	80	72	95	119	75	85	83	105
Last 4 weeks as % of 3-yr avg.**	89	86	99	116	86	94	86	104
Total 2016	95,179	150,990	590,779	45,246	300,836	1,183,030	193,781	234,738

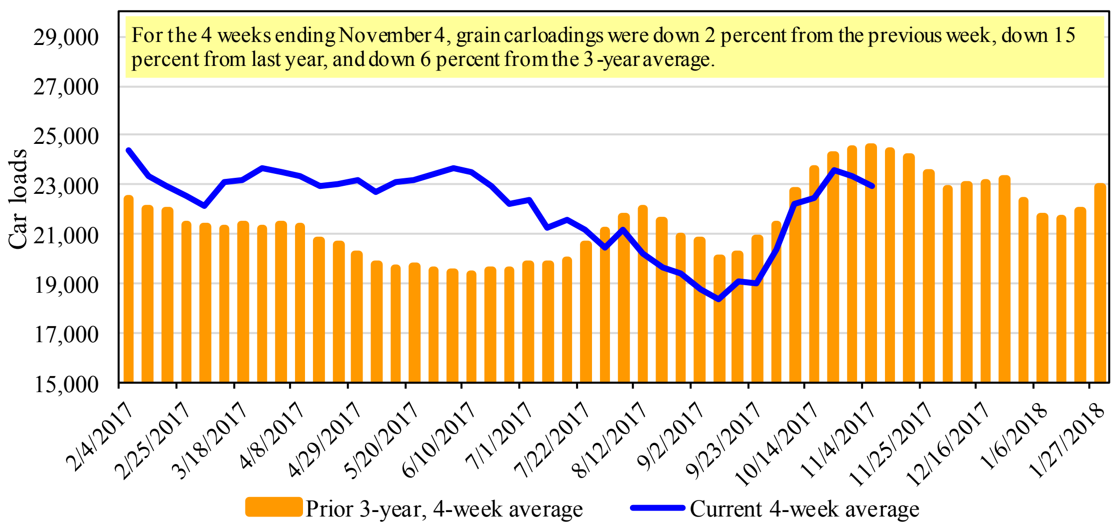
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

**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: 11/9/2017		Nov-17	Nov-16	Dec-17	Dec-16	Jan-18	Jan-17	Feb-18	Feb-17
		Delivery period							
BNSF[3]	COT grain units	no bids	no bids	no bids	no bids	no bids	no bids	no bids	no bids
	COT grain single-car[5]	0	76	0	156	0	8	0	1
UP[4]	GCAS/Region 1	no bids	no bids	no bids	no bids	no bids	no offer	n/a	n/a
	GCAS/Region 2	no bids	no bids	no bids	no bids	no bids	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

[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.

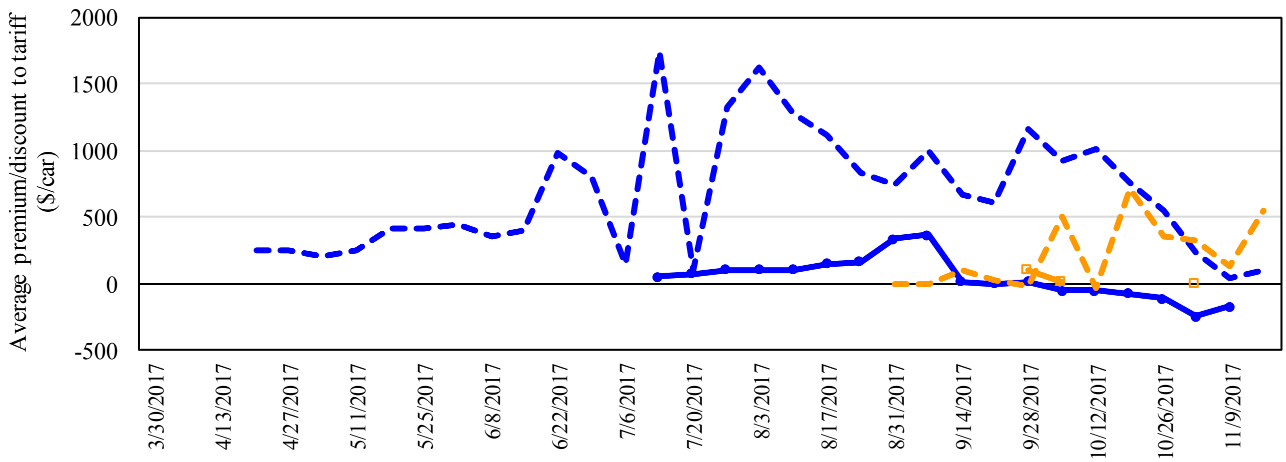
Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

[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 2017, Secondary Market

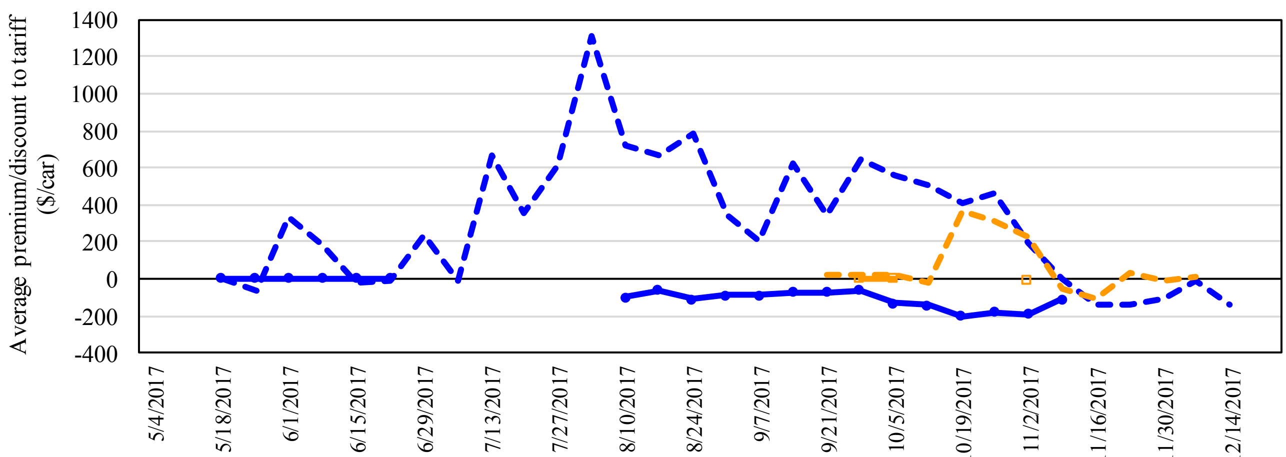


11/9/2017	BNSF	UP
Non-Shuttle	n/a	n/a
Shuttle	-$100	-$250

There were no Non-Shuttle bids/offers this week.
Average Shuttle bids/offers rose $70 this week and are $538 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 2017, Secondary Market



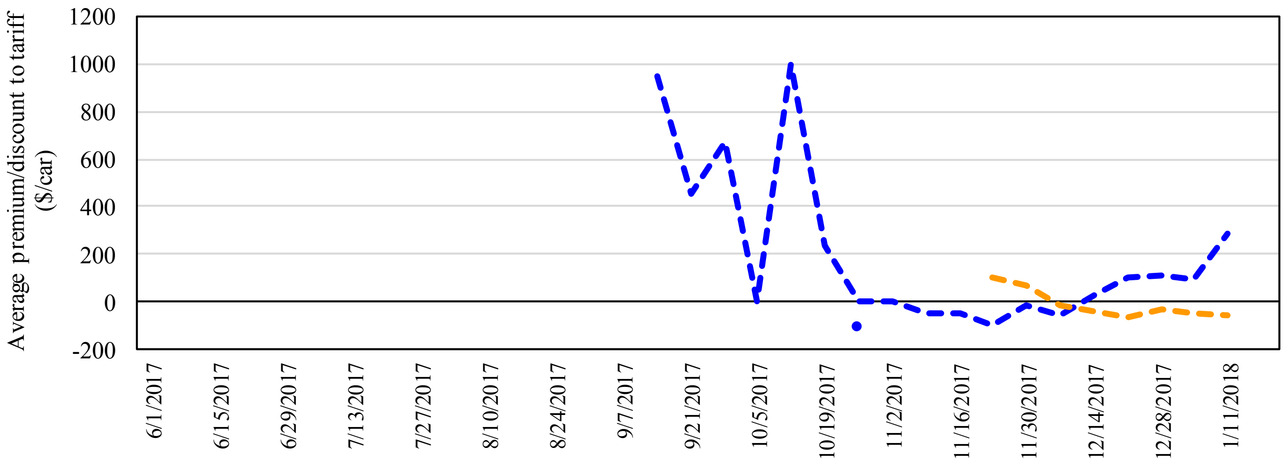
11/9/2017	BNSF	UP
Non-Shuttle	n/a	n/a
Shuttle	-$25	-$200

There were no Non-Shuttle bids/offers this week.
Average Shuttle bids/offers rose $79 this week and are $113 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 2018, Secondary Market



11/9/2017	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.

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: 11/9/2017	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18
		Delivery period					
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 2016	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 2016	n/a	n/a	n/a	n/a	n/a	n/a
Shuttle	**BNSF-GF**	**(100)**	**(25)**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	127	158	n/a	n/a	n/a	n/a
	Change from same week 2016	(200)	(81)	n/a	n/a	n/a	n/a
	UP-Pool	**(250)**	**(200)**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	13	0	n/a	n/a	n/a	n/a
	Change from same week 2016	(175)	(200)	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, 2017	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	$3,883	$71	$39.26	$1.07	-29
	Grand Forks, ND	Duluth-Superior, MN	$4,143	$0	$41.14	$1.12	9
	Wichita, KS	Los Angeles, CA	$7,050	$0	$70.01	$1.91	70
	Wichita, KS	New Orleans, LA	$4,540	$125	$46.32	$1.26	-33
	Sioux Falls, SD	Galveston-Houston, TX	$6,786	$0	$67.39	$1.83	52
	Northwest KS	Galveston-Houston, TX	$4,816	$137	$49.18	$1.34	-24
	Amarillo, TX	Los Angeles, CA	$5,021	$190	$51.75	$1.41	10
Corn	Champaign-Urbana, IL	New Orleans, LA	$3,931	$141	$40.44	$1.03	-18
	Toledo, OH	Raleigh, NC	$6,344	$0	$63.00	$1.60	70
	Des Moines, IA	Davenport, IA	$2,258	$30	$22.72	$0.58	-62
	Indianapolis, IN	Atlanta, GA	$5,446	$0	$54.08	$1.37	140
	Indianapolis, IN	Knoxville, TN	$4,540	$0	$45.08	$1.15	-13
	Des Moines, IA	Little Rock, AR	$3,609	$88	$36.71	$0.93	-14
	Des Moines, IA	Los Angeles, CA	$5,327	$255	$55.43	$1.41	56
Soybeans	Minneapolis, MN	New Orleans, LA	$3,631	$127	$37.32	$1.02	-29
	Toledo, OH	Huntsville, AL	$5,287	$0	$52.50	$1.43	44
	Indianapolis, IN	Raleigh, NC	$6,460	$0	$64.15	$1.75	28
	Indianapolis, IN	Huntsville, AL	$4,764	$0	$47.31	$1.29	-23
	Champaign-Urbana, IL	New Orleans, LA	$4,745	$141	$48.52	$1.32	8
Shuttle Train							
Wheat	Great Falls, MT	Portland, OR	$3,953	$0	$39.26	$1.07	-13
	Wichita, KS	Galveston-Houston, TX	$4,171	$0	$41.42	$1.13	6
	Chicago, IL	Albany, NY	$5,663	$0	$56.24	$1.53	46
	Grand Forks, ND	Portland, OR	$5,611	$0	$55.72	$1.52	2
	Grand Forks, ND	Galveston-Houston, TX	$5,931	$0	$58.90	$1.60	6
	Northwest KS	Portland, OR	$5,812	$224	$59.94	$1.63	2
Corn	Minneapolis, MN	Portland, OR	$5,000	$0	$49.65	$1.26	-13
	Sioux Falls, SD	Tacoma, WA	$4,960	$0	$49.26	$1.25	-1
	Champaign-Urbana, IL	New Orleans, LA	$3,731	$141	$38.45	$0.98	-22
	Lincoln, NE	Galveston-Houston, TX	$3,700	$0	$36.74	$0.93	4
	Des Moines, IA	Amarillo, TX	$3,970	$110	$40.52	$1.03	10
	Minneapolis, MN	Tacoma, WA	$5,000	$0	$49.65	$1.26	27
	Council Bluffs, IA	Stockton, CA	$4,820	$0	$47.86	$1.22	-4
Soybeans	Sioux Falls, SD	Tacoma, WA	$5,600	$0	$55.61	$1.51	18
	Minneapolis, MN	Portland, OR	$5,650	$0	$56.11	$1.53	1
	Fargo, ND	Tacoma, WA	$5,500	$0	$54.62	$1.49	-3
	Council Bluffs, IA	New Orleans, LA	$4,775	$162	$49.03	$1.33	-10
	Grand Island, NE	Portland, OR	$5,710	$229	$58.98	$1.61	41

[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, 2017

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	$7,459	$0	$76.21	$2.07	0
	OK	Cuautitlan, EM	$6,631	$98	$68.75	$1.87	1
	KS	Guadalajara, JA	$7,309	$273	$77.46	$2.11	5
	TX	Salinas Victoria, NL	$4,292	$60	$44.46	$1.21	3
Corn	IA	Guadalajara, JA	$8,313	$239	$87.38	$2.22	3
	SD	Celaya, GJ	$7,700	$0	$78.68	$2.00	2
	NE	Queretaro, QA	$8,013	$205	$83.97	$2.13	3
	SD	Salinas Victoria, NL	$6,743	$0	$68.90	$1.75	2
	MO	Tlalnepantla, EM	$7,379	$200	$77.44	$1.97	3
	SD	Torreon, CU	$7,300	$0	$74.59	$1.89	2
Soybeans	MO	Bojay (Tula), HG	$8,134	$223	$85.39	$2.32	-5
	NE	Guadalajara, JA	$8,692	$242	$91.28	$2.48	-1
	IA	El Castillo, JA	$8,960	$0	$91.55	$2.49	0
	KS	Torreon, CU	$7,489	$175	$78.31	$2.13	1
Sorghum	NE	Celaya, GJ	$7,345	$219	$77.29	$1.96	4
	KS	Queretaro, QA	$7,819	$122	$81.14	$2.06	4
	NE	Salinas Victoria, NL	$6,452	$98	$66.92	$1.70	5
	NE	Torreon, CU	$6,790	$167	$71.08	$1.80	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

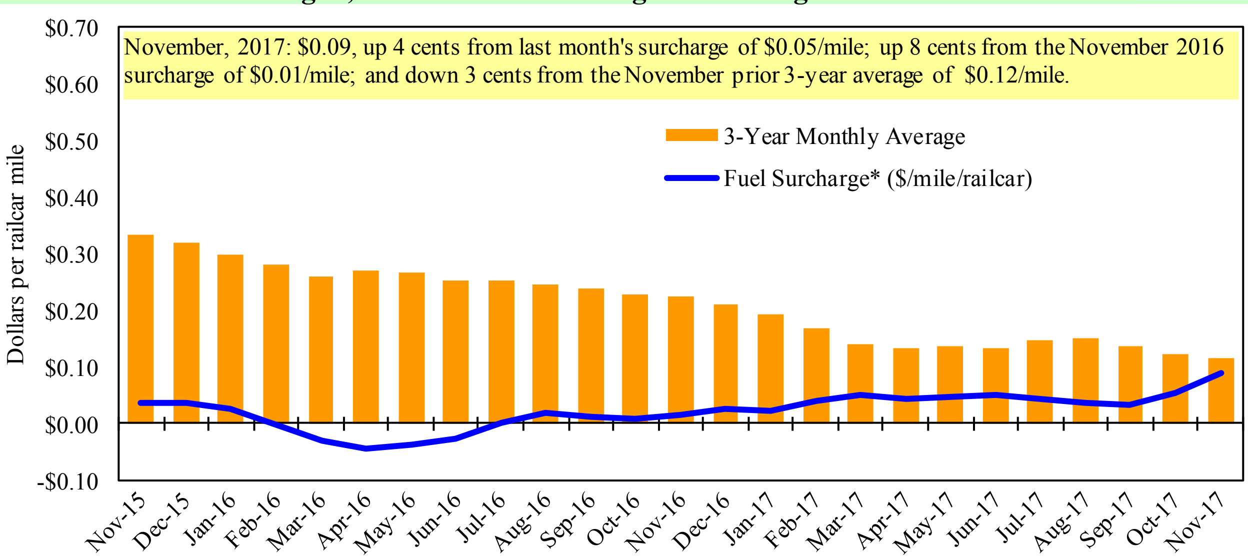
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

[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]

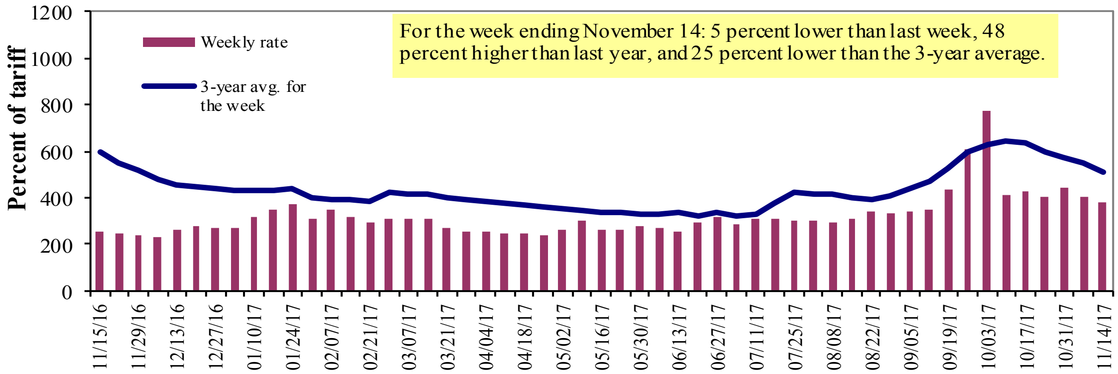


[1] Weighted by each Class I railroad's proportion of grain traffic for the prior year.
* Beginning January 2009, the Canadian Pacific fuel surcharge is computed by a monthly average of the bi-weekly fuel surcharge.
**CSX strike price changed from $2.00/gal. to $3.75/gal. starting January 1, 2015.
Sources: 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]	11/14/2017	408	368	380	255	470	470	235
	11/7/2017	420	395	400	288	428	428	260
$/ton	11/14/2017	25.26	19.58	17.63	10.17	22.04	18.99	7.38
	11/7/2017	26.00	21.01	18.56	11.49	20.07	17.29	8.16
Current week % change from the same week:								
	Last year	1	24	48	28	98	94	45
	3-year avg. [2]	-25	-31	-25	-38	-5	-5	-34
Rate[1]	December	-	-	310	218	258	258	198
	February	-	-	308	218	233	233	195

[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-week moving average; ton = 2,000 pounds; "-" = closed

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.

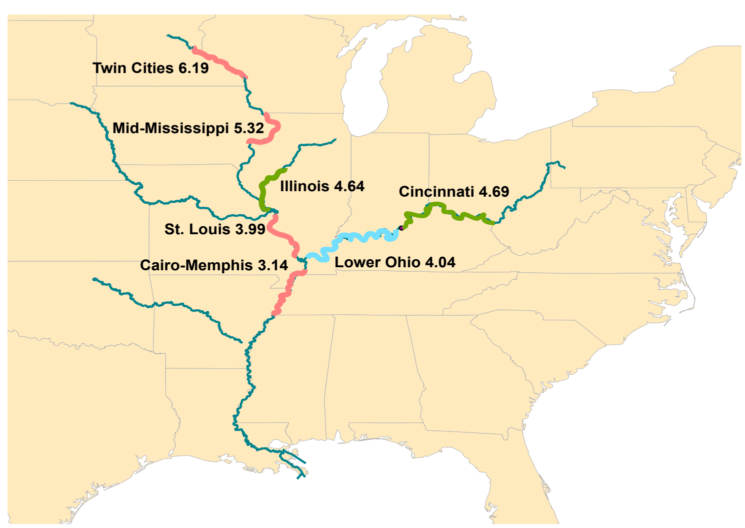
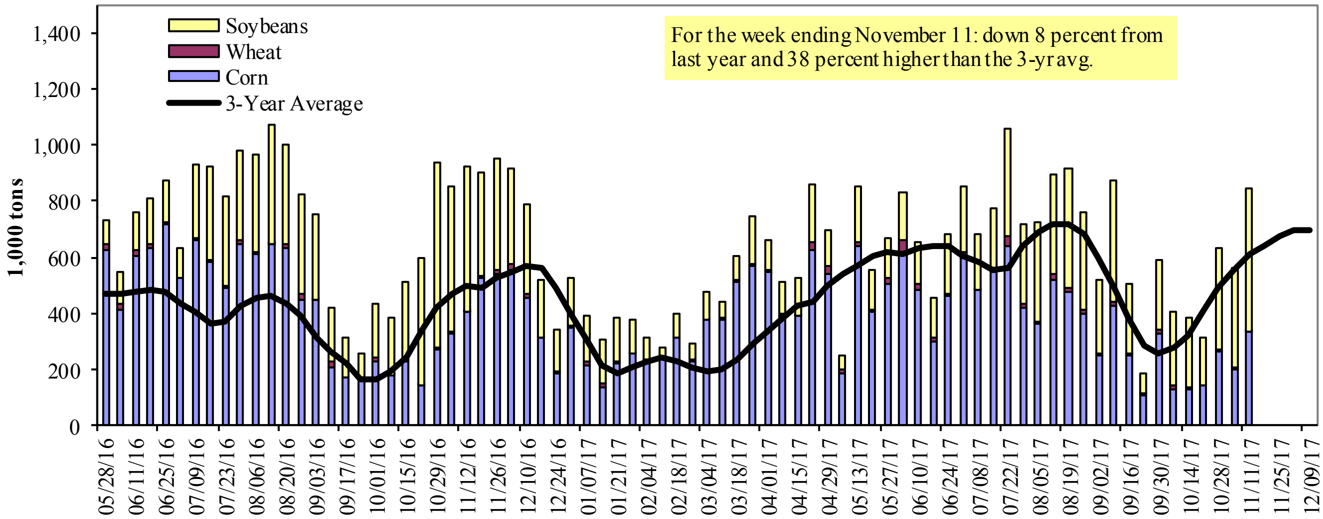


Figure 10

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 11/11/2017	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	120	5	225	11	360
Winfield, MO (L25)	182	3	403	15	604
Alton, IL (L26)	344	3	502	15	865
Granite City, IL (L27)	332	3	509	15	859
Illinois River (L8)	63	0	45	0	108
Ohio River (L52)	53	2	108	5	168
Arkansas River (L1)	0	3	73	0	76
Weekly total - 2017	385	8	690	21	1,103
Weekly total - 2016	463	15	831	3	1,313
2017 YTD[1]	19,441	2,064	13,495	300	35,300
2016 YTD	20,875	1,872	13,448	310	36,506
2017 as % of 2016 YTD	93	110	100	97	97
Last 4 weeks as % of 2016[2]	89	58	67	306	74
Total 2016	24,136	2,030	16,668	344	43,178

[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.

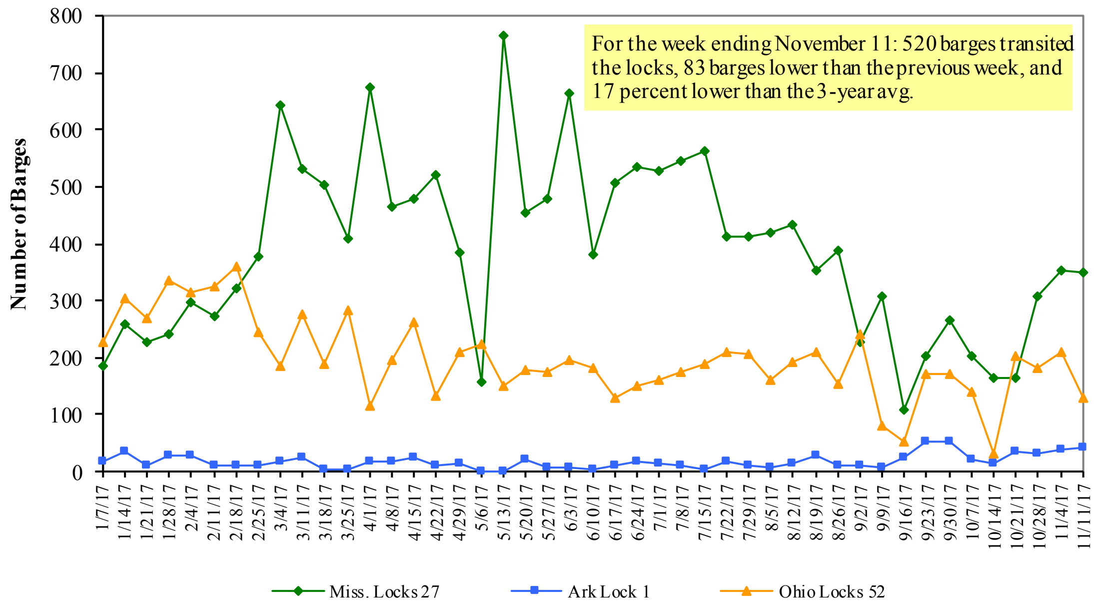
[2] As a percent of same period in 2016.

Note: Total may not add exactly, due to rounding

Source: U.S. Army Corps of Engineers

Figure 11

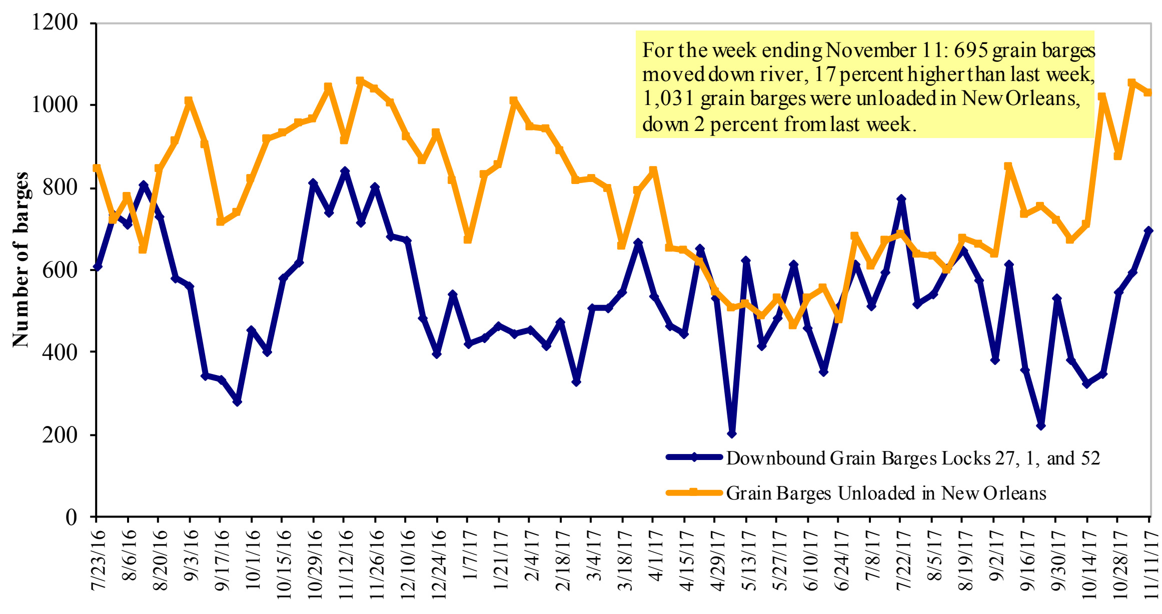
Upbound Empty Barges Transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Locks and Dam 52



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 11/13/2017 (US $/gallon)

Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	2.884	0.036	0.431
	New England	2.850	0.038	0.368
	Central Atlantic	3.018	0.043	0.454
	Lower Atlantic	2.795	0.031	0.432
II	Midwest[2]	2.884	0.023	0.497
III	Gulf Coast[3]	2.697	0.029	0.381
IV	Rocky Mountain	2.992	0.027	0.500
V	West Coast	3.390	0.058	0.633
	West Coast less California	3.120	0.045	0.463
	California	3.610	0.069	0.773
Total	U.S.	2.915	0.033	0.472

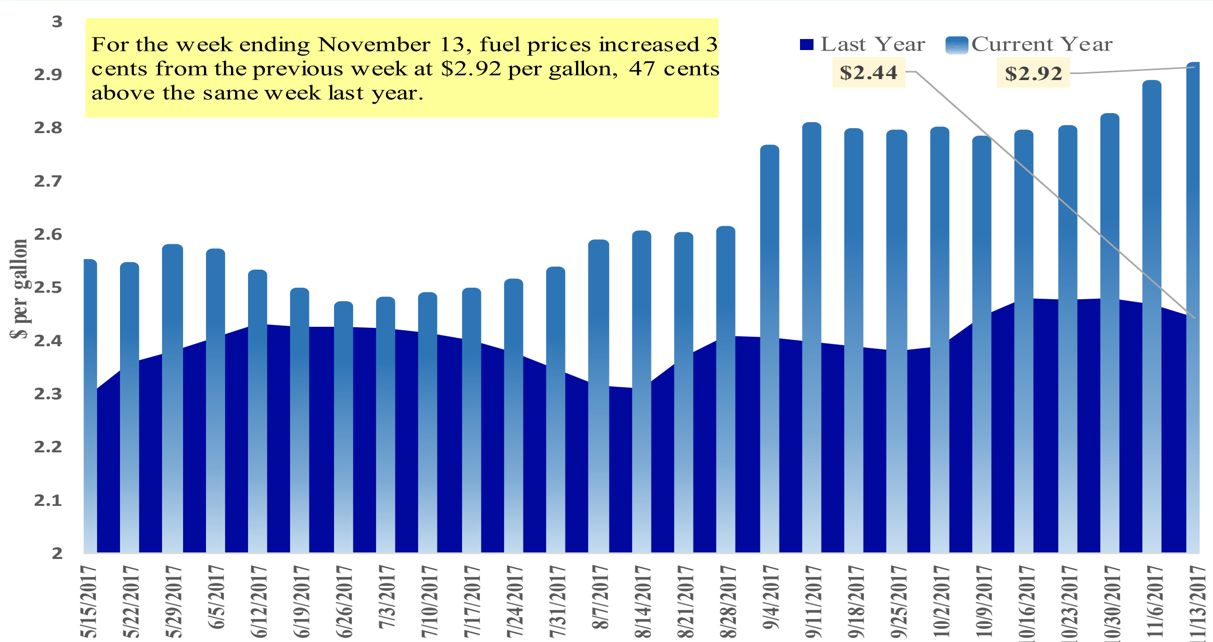
[1]Diesel fuel prices include all taxes. Prices represent an average of all types of diesel fuel.

[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)

	Wheat						Corn	Soybeans	Total
For the week ending	HRW	SRW	HRS	SWW	DUR	All wheat			
Export Balances[1]									
11/2/2017	1,937	523	1,701	1,257	59	5,477	13,663	16,772	35,911
This week year ago	2,112	535	1,756	1,023	173	5,598	16,185	21,078	42,861
Cumulative exports-marketing year[2]									
2017/18 YTD	4,331	1,013	2,851	2,419	201	10,815	5,730	14,707	31,251
2016/17 YTD	5,029	937	3,506	1,852	151	11,475	9,801	15,988	37,263
YTD 2017/18 as % of 2016/17	86	108	81	131	133	94	58	92	84
Last 4 wks as % of same period 2016/17	76	103	92	121	40	91	74	87	82
2016/17 Total	11,096	2,285	7,923	4,254	484	26,042	41,864	51,156	119,062
2015/16 Total	5,538	3,057	6,285	3,551	670	19,101	45,564	49,821	114,486

[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: 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 11/02/2017	**2017/18 Current MY**	**2016/17 Last MY**	**% change current MY from last MY**	**Exports[3] 3-year avg 2014-2016**
				- 1,000 mt -
Mexico	8,344	7,799	7	12,297
Japan	2,618	3,242	(19)	11,450
Korea	869	1,752	(50)	4,494
Colombia	1,269	1,658	(23)	4,179
Peru	1,010	881	15	2,693
Top 5 Importers	**14,109**	**15,333**	**(8)**	**35,113**
Total US corn export sales	**19,393**	**25,985**	**(25)**	**49,308**
% of Projected	40%	45%		
Change from prior week[2]	**2,365**	**1,234**		
Top 5 importers' share of U.S. corn export sales	73%	59%		71%
USDA forecast, November 2017	**48,982**	**58,346**	**(16)**	
Corn Use for Ethanol USDA forecast, November 2017	**139,065**	**138,151**	**1**	

[1]Based on FAS Marketing Year Ranking Reports for 2015/16 - 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 11/02/2017	Commitments[2] 2017/18 Current MY	2016/17 Last MY	% change current MY from last MY	Exports[3] 3-yr avg. 2014-2016
	- 1,000 mt -			- 1,000 mt -
China	17,126	20,805	(18)	31,881
Mexico	1,633	1,571	4	3,452
Indonesia	683	571	20	1,987
Japan	851	986	(14)	2,067
Netherlands	338	343	0	2,098
Top 5 importers	**20,631**	**24,277**	**(15)**	**41,486**
Total US soybean export sales	**31,478**	**37,066**	**(15)**	**52,919**
% of Projected	51%	63%		
Change from prior week[2]	**1,161**	**939**		
Top 5 importers' share of U.S. soybean export sales	66%	65%		**78%**
USDA forecast, November 2017	**61,308**	**59,237**	**103**	

(n) indicates negative number.

[1]Based on FAS Marketing Year Ranking Reports for 2015/16 - 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 11/02/2017	Total Commitments[2] 2017/18 Current MY	2016/17 Last MY	% change current MY from last MY	Exports[3] 3-yr avg 2014-2016
	- 1,000 mt -			- 1,000 mt -
Japan	1,663	1,500	11	2,620
Mexico	1,996	1,695	18	2,743
Philippines	1,977	1,801	10	2,395
Brazil	111	1,015	(89)	862
Nigeria	816	722	13	1,254
Korea	1,142	877	30	1,104
China	782	555	41	1,623
Taiwan	745	594	26	768
Indonesia	690	483	43	726
Colombia	403	538	(25)	635
Top 10 importers	**10,325**	**9,780**	6	**14,729**
Total US wheat export sales	**16,291**	**17,073**	**(5)**	**22,804**
% of Projected	60%	59%		
Change from prior week[2]	**782**	**770**		
Top 10 importers' share of U.S. wheat export sales	63%	57%		65%
USDA forecast, November 2017	**27,248**	**28,747**	**(5)**	

(n) indicates negative number.

[1] Based on FAS Marketing Year Ranking Reports for 2015/16 - 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 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 11/09/17	Previous Week[1]	Current Week as % of Previous	2017 YTD	2016 YTD	2017 YTD as % of 2016 YTD	Last 4-weeks as % of: Last Year	Last 4-weeks as % of: Prior 3-yr. avg.	2016 Total
Pacific Northwest									
Wheat	139	233	60	13,080	10,737	122	102	108	12,325
Corn	21	0	n/a	10,258	10,683	96	9	19	12,009
Soybeans	440	790	56	9,927	10,733	92	34	50	14,447
Total	**600**	**1,023**	**59**	**33,265**	**32,154**	**103**	**87**	**98**	**38,782**
Mississippi Gulf									
Wheat	61	48	126	3,885	3,114	125	123	112	3,480
Corn	158	348	45	26,058	27,912	93	68	84	31,420
Soybeans	1,443	1,366	106	25,990	26,952	96	86	95	35,278
Total	**1,662**	**1,763**	**94**	**55,932**	**57,978**	**96**	**82**	**93**	**70,178**
Texas Gulf									
Wheat	99	0	n/a	5,756	5,192	111	47	65	6,019
Corn	4	0	n/a	700	1,462	48	22	50	1,669
Soybeans	60	74	81	219	778	28	34	50	1,105
Total	**163**	**74**	**221**	**6,675**	**7,433**	**90**	**38**	**56**	**8,792**
Interior									
Wheat	3	18	17	1,527	1,337	114	46	67	1,543
Corn	182	91	200	7,232	6,258	116	97	124	7,197
Soybeans	118	198	60	4,592	3,879	118	90	105	4,577
Total	**304**	**307**	**99**	**13,351**	**11,475**	**116**	**89**	**110**	**13,317**
Great Lakes									
Wheat	14	0	n/a	596	945	63	72	51	1,186
Corn	0	0	n/a	173	501	35	0	0	584
Soybeans	47	54	87	715	630	114	79	77	910
Total	**61**	**54**	**113**	**1,485**	**2,075**	**72**	**71**	**67**	**2,681**
Atlantic									
Wheat	0	1	0	46	288	16	2	4	315
Corn	0	5	0	29	293	10	14	19	294
Soybeans	88	86	103	1,521	1,570	97	93	120	2,269
Total	**88**	**92**	**96**	**1,595**	**2,151**	**74**	**72**	**98**	**2,878**
U.S. total from ports[2]									
Wheat	317	300	106	24,890	21,613	115	77	88	24,867
Corn	366	444	82	44,450	47,109	94	66	86	53,173
Soybeans	2,197	2,567	86	42,964	44,543	96	85	95	58,587
Total	**2,879**	**3,312**	**87**	**112,303**	**113,265**	**99**	**80**	**93**	**136,627**

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

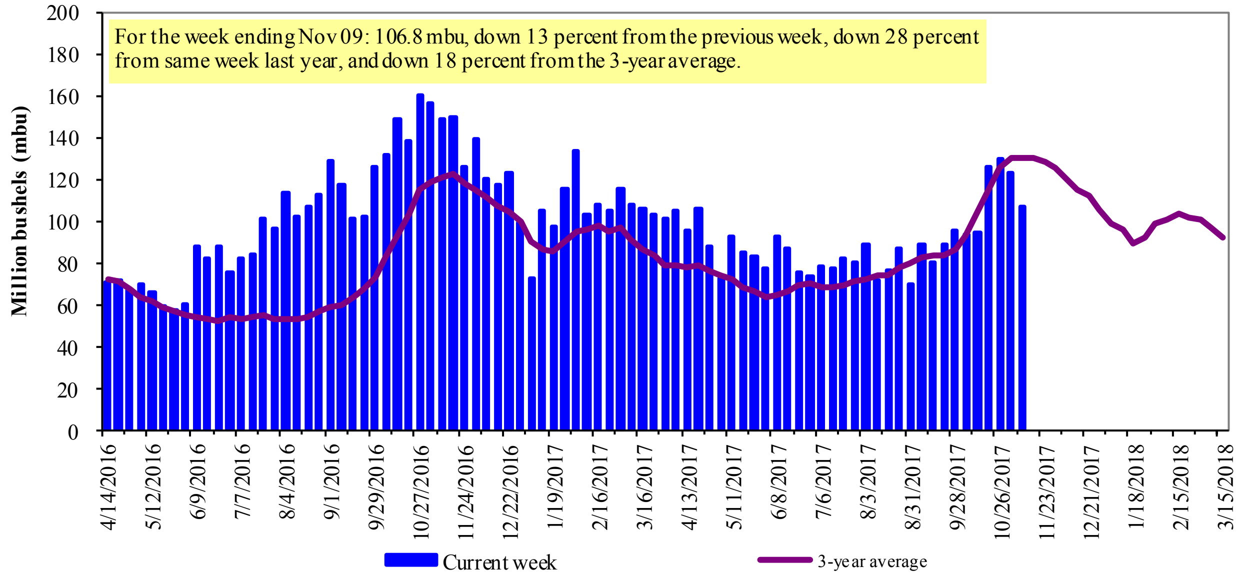
Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov); YTD= year-to-date; n/a = not applicable

[2] Total only includes regions shown above.

The United States exports approximately one-quarter of the grain it produces. On average, this includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 58 percent of the U.S. export grain shipments departed through the U.S. Gulf region in 2016.

Figure 14

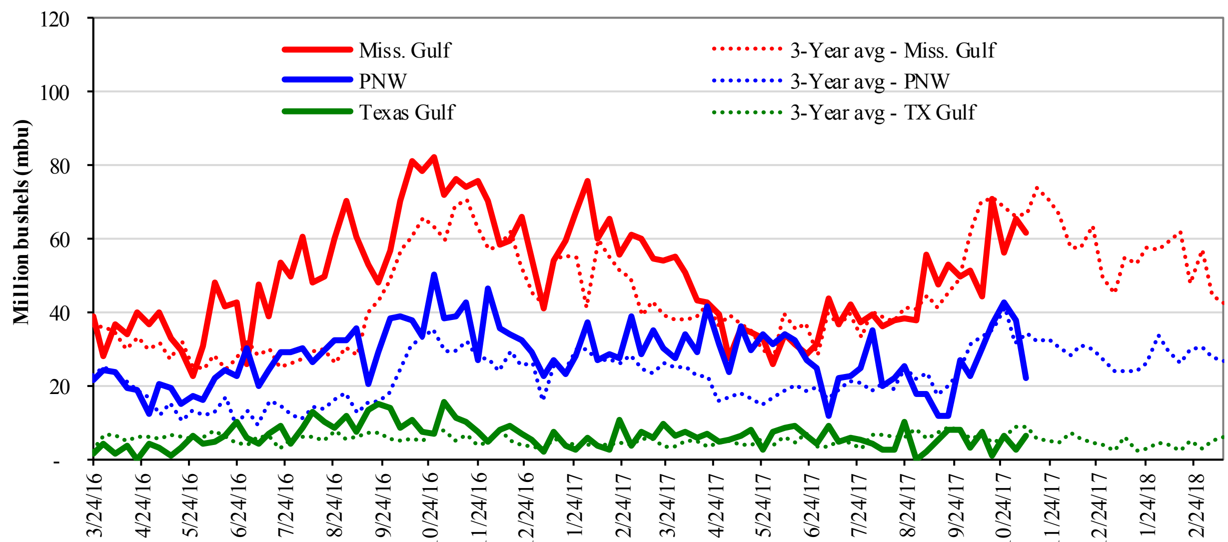
U.S. grain inspected for export (wheat, corn, and soybeans)



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 11/09/17 inspections (mbu):		Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Mississippi Gulf:	61.5	Last Week:	down 6	up 121	down 1	down 41
PNW:	22.1	Last Year (same week):	down 19	down 46	down 23	down 43
Texas Gulf:	6.0	3-yr avg. (4-wk. mov. Avg):	down 10	down 14	down 10	down 38

Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov)
[1]The 3-year average is based on a 4-week running average

Ocean Transportation

Table 17

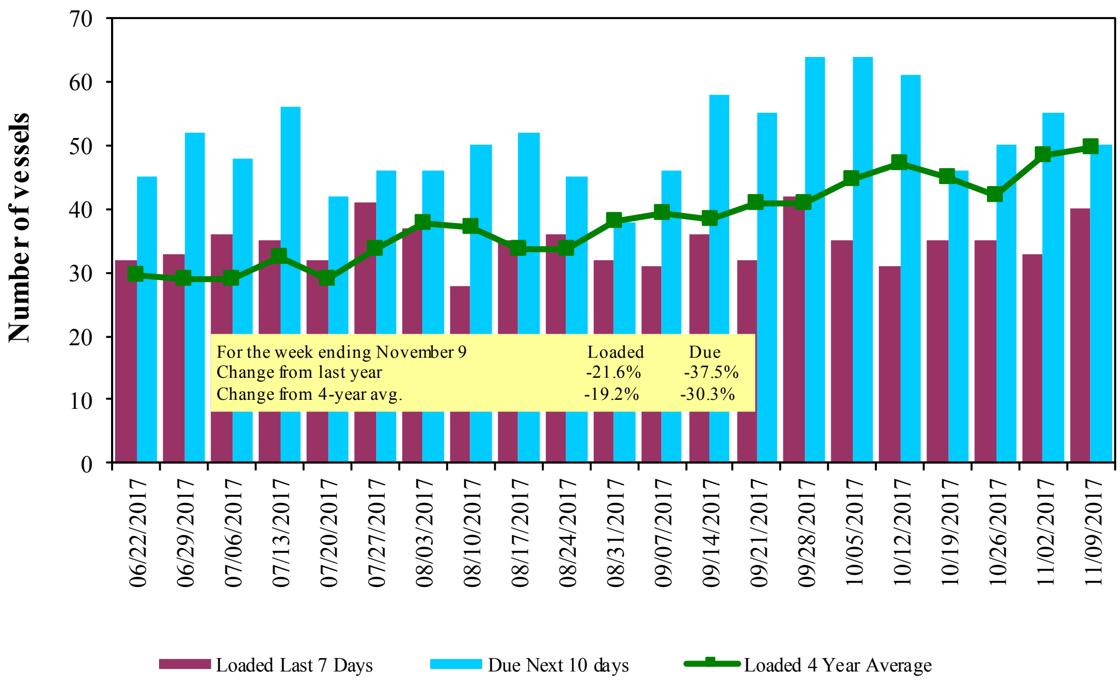
Weekly Port Region Grain Ocean Vessel Activity (number of vessels)

	Gulf			Pacific Northwest	Vancouver B.C.
Date	In port	Loaded 7-days	Due next 10-days	In port	In port
11/9/2017	52	40	50	6	n/a
11/2/2017	57	33	55	6	n/a
2016 range	(21..62)	(27..55)	(40..87)	(6..27)	n/a
2016 avg.	43	40	62	15	n/a

Source: Transportation & Marketing Programs/AMS/USDA

Figure 16

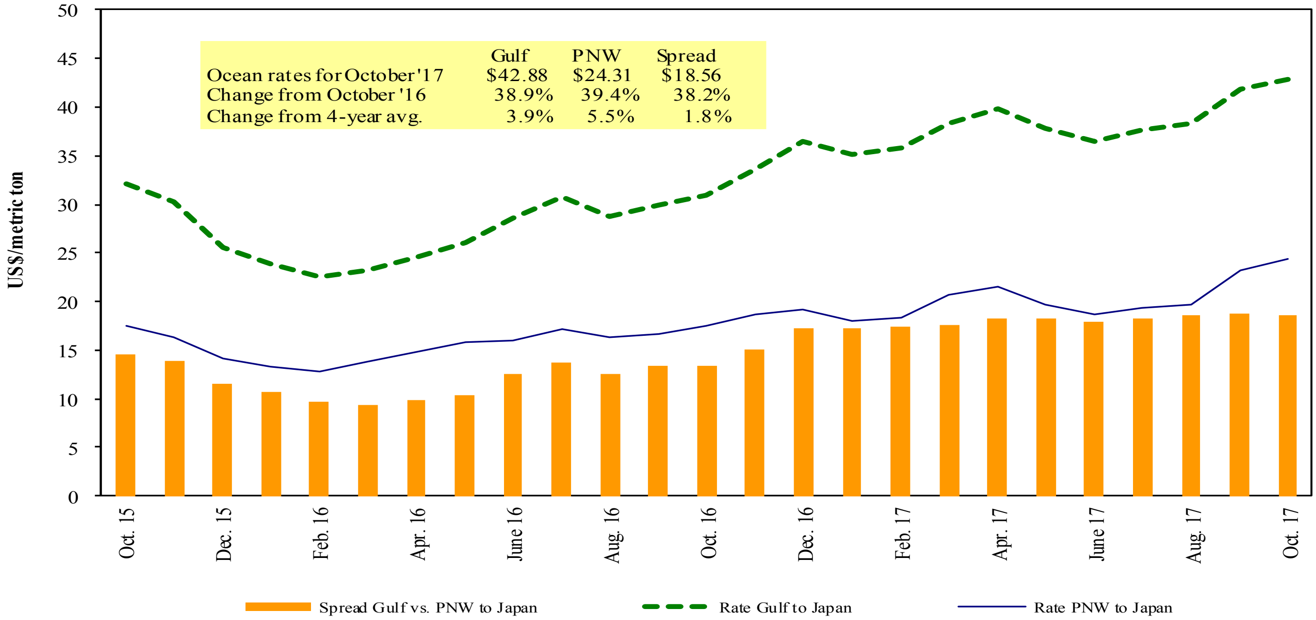
U.S. Gulf Vessel Loading Activity



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 11/11/2017

Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US$/metric ton)
U.S. Gulf	Gulf	Heavy Grain	Nov 20/30	66,000	42.00
U.S. Gulf	Gulf	Heavy Grain	Nov 15/25	65,000	43.85
U.S. Gulf	China	Heavy Grain	Nov 10/20	66,000	43.75
U.S. Gulf	China	Heavy Grain	Nov 10/15	66,000	40.25
U.S. Gulf	China	Heavy Grain	Nov 1/10	66,000	42.00
U.S. Gulf	China	Heavy Grain	Nov 1/10	66,000	41.75
U.S. Gulf	China	Heavy Grain	Nov 1/10	66,000	41.25
U.S. Gulf	China	Heavy Grain	Nov 1/10	66,000	42.00
U.S. Gulf	China	Heavy Grain	Nov 1/10	66,000	41.50
U.S. Gulf	China	Heavy Grain	Oct 23/30	60,000	40.50
U.S. Gulf	China	Heavy Grain	Oct 15/30	66,000	42.50
U.S. Gulf	China	Heavy Grain	Oct 10/20	66,000	41.00
U.S. Gulf	Dakar	Wheat	Nov 20/30	7,500	73.89*
PNW	China	Heavy Grain	Oct 1/10	60,000	25.00
PNW	Bangladesh	Wheat	Sep 29/Oct 9	13,620	58.00*
Brazil	China	Heavy Grain	Nov 20/30	60,000	33.75
Brazil	China	Heavy Grain	Nov 1/10	60,000	31.90
Brazil	China	Heavy Grain	Oct 25/Nov 10	60,000	32.50
Brazil	S. Korea	Heavy Grain	Nov 22/29	63,000	33.25

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

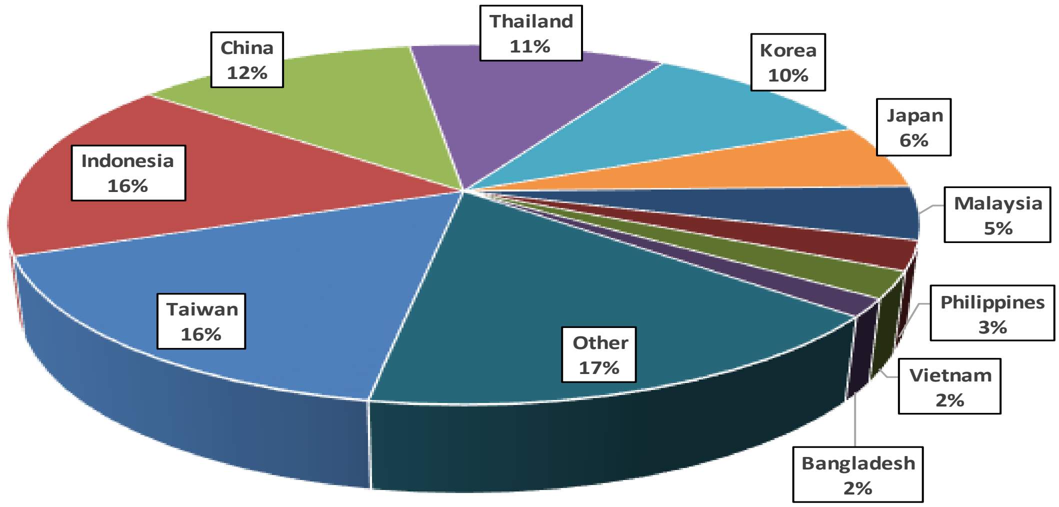
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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

In 2015, containers were used to transport 8 percent of total U.S. waterborne grain exports. Approximately 64 percent of U.S. waterborne grain exports in 2015 went to Asia, of which 12 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, January-July 2017

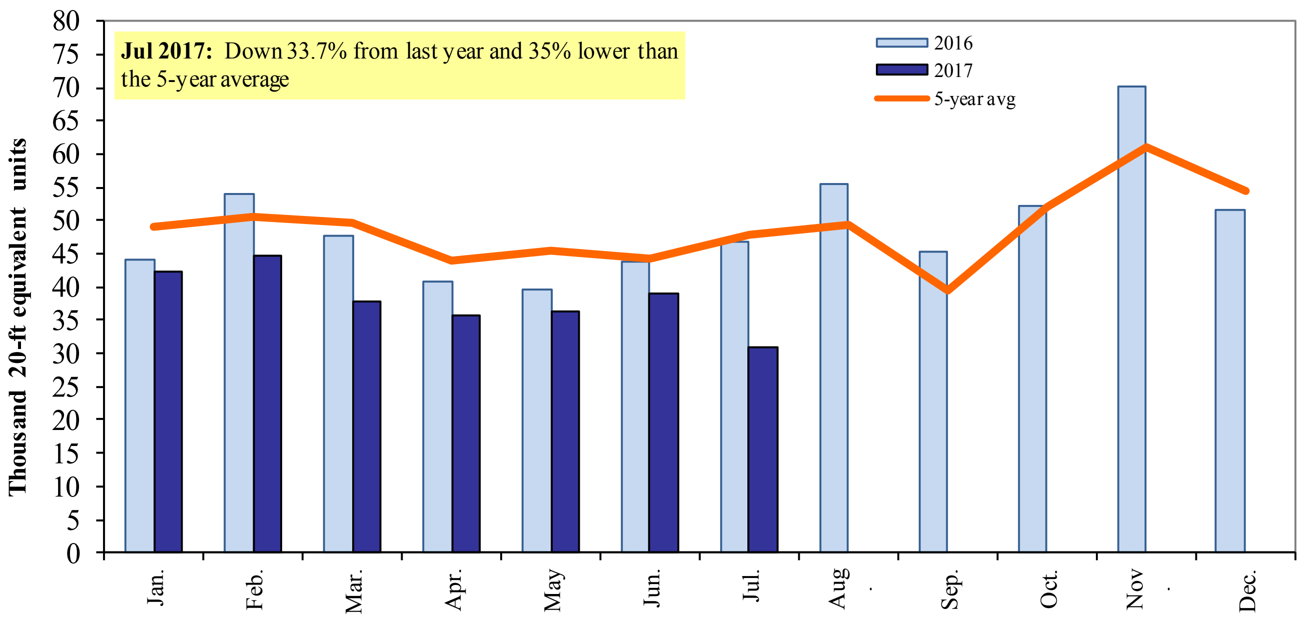


Source: USDA/Agricultural Marketing Service/Transportation Services Division analysis of Port Import Export Reporting Service (PIERS) data

Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 100190, 100200, 100300, 100400, 100590, 100700, 110100, 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.

Contacts and Links

Coordinators		
Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@ams.usda.gov	(202) 720 - 0119
Pierre Bahizi	pierre.bahizi@ams.usda.gov	(202) 690 - 0992
Adam Sparger	adam.sparger@ams.usda.gov	(202) 205 - 8701
Weekly Highlight Editors		
Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@ams.usda.gov	(202) 720 - 0119
April Taylor	april.taylor@ams.usda.gov	(202) 720 - 7880
Nicholas Marathon	nick.marathon@ams.usda.gov	(202) 690 - 4430
Grain Transportation Indicators		
Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@ams.usda.gov	(202) 720 - 0119
Rail Transportation		
Adam Sparger	adam.sparger@ams.usda.gov	(202) 205 - 8701
Johnny Hill	johnny.hill@ams.usda.gov	(202) 690 - 3295
Jesse Gastelle	jesse.gastelle@ams.usda.gov	(202) 690 - 1144
Peter Caffarelli	petera.caffarelli@ams.usda.gov	(202) 690 - 3244
Barge Transportation		
Nicholas Marathon	nick.marathon@ams.usda.gov	(202) 690 - 4430
April Taylor	april.taylor@ams.usda.gov	(202) 720 - 7880
Matt Chang	matt.chang@ams.usda.gov	(202) 720 - 0299
Truck Transportation		
April Taylor	april.taylor@ams.usda.gov	(202) 720 - 7880
Sergio Sotelo	sergioa.sotelo@ams.usda.gov	(202) 756 - 2577
Grain Exports		
Johnny Hill	johnny.hill@ams.usda.gov	(202) 690 - 3295
Ocean Transportation		
Surajudeen (Deen) Olowolayemo (Freight rates and vessels)	surajudeen.olowolayemo@ams.usda.gov	(202) 720 - 0119
April Taylor (Container movements)	april.taylor@ams.usda.gov	(202) 720 - 7880

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

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