



Grain Transportation Report

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

Contact Us

May 3, 2018

WEEKLY HIGHLIGHTS

Contents

Article/
Calendar

Grain
Transportation
Indicators

Rail

Barge

Truck

Exports

Ocean

Brazil

Mexico

Grain Truck/Ocean
Rate Advisory

Datasets

Specialists

Subscription
Information

The next
release is
May 10, 2018

Strong Demand and Service Challenges Drive Up Secondary Shuttle Rates

Average May shuttle **secondary railcar** bids/offers per car were \$600 above tariff for the week ending April 26, down \$92 from last week, and \$881 higher than last year. As **this week's feature article** discusses, rates have generally increased in the secondary market since January. Trucks, barges, and railroads have faced service challenges in the first quarter of 2018, limiting the availability of transportation options, which could boost premiums for guaranteed rail freight. At the same time, exports out of the Pacific Northwest (which are largely rail-supplied) have been strong, suggesting that demand for rail transportation for grain is up. For the week ending April 21, U.S. Class I railroads originated 25,938 **grain carloads**. That number is 30 percent above the 3-year average, a near-record for April and exceeding all weekly totals in 2017, and so far in 2018. The last time weekly grain carloads were this high in April was in 2008.

Soybean Inspections Increase but Total Exports Recede

For the week ending April 26, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions reached 2.5 million metric tons (mmt) down 13 percent from the previous week, up 9 percent from last year, and 18 percent above the 3-year average. Total inspections of grain decreased, despite a 33 percent increase in inspections of soybeans which were shipped primarily to Asia. The increase in soybean inspections, could not offset the 42 percent drop in inspections of wheat, and the 16 percent decrease in inspections of corn. Total Pacific Northwest (PNW) grain inspections decreased 24 percent from week to week, and Mississippi Gulf inspections decreased 5 percent for the same period. Current outstanding export sales are down for corn, wheat, and soybeans.

High Water Continues to Delay Barge Operations in the Mississippi River-Gulf

Flooding and high water conditions in the lower Mississippi River near Baton Rouge, and surrounding areas, continues to cause delays in barge operations. Slower transit times, due to adverse navigation conditions, have caused traffic congestion in the area. The barge industry has added tow boats while reducing the number of barges towed per boat, to adjust operations to the fast and high river conditions. Daylight-only transits remain through Vicksburg and Baton Rouge bridges. The barge industry expects delays to persist for the foreseeable future. Barge spot rates, for export grain from major originating points, have fluctuated for several weeks. However, spot rates are currently 37 to 70 percent higher than the 3-year average, due to higher operating costs.

Snapshots by Sector

Export Sales

For the week ending April 19, **unshipped balances** of wheat, corn, and soybeans totaled 35 mmt, up 29 percent from the same time last year. Net weekly **wheat export sales** were .297 mmt, up significantly from the previous week. Net **corn export sales** were .697 mmt, down 36 percent from the previous week. Net **soybean export sales** totaled .371 mmt, down 64 percent from the previous week.

Barge

For the week ending April 28, **barge grain movements** totaled 739,350 tons, 13 percent higher than the previous week, and down 11 percent from the same period last year.

For the week ending April 28, 473 grain barges **moved down river**, 21 barges more than the previous week. There were 656 grain barges **unloaded in New Orleans**, 7 percent lower than the previous week.

Ocean

For the week ending April 26, 31 **ocean-going grain vessels** were loaded in the Gulf, 11 percent less than the same period last year. Forty-three vessels are expected to be loaded within the next 10 days, 7 percent less than the same period last year.

For the week ending April 26, the ocean freight rate for shipping bulk grain from the Gulf to Japan was \$44.25 per metric ton, up 1 percent from the previous week. The cost of shipping from the PNW to Japan was \$24.00 per metric ton, unchanged from the previous week.

Fuel

For the week ending April 30, the U.S. average **diesel fuel price** increased 2 cents from the previous week at \$3.16 per gallon, 57 cents higher than the same week last year.

Containerized Grain Exports

Containerized grain exports to Asia in February were just over 48,000 twenty-foot equivalent units (TEU); 4.6 percent higher than the previous year, 6 percent lower than the 5-year average, and 32 percent higher than January movements.

Feature Article/Calendar

Strong Demand and Service Challenges Drive Up Secondary Railcar Shuttle Rates

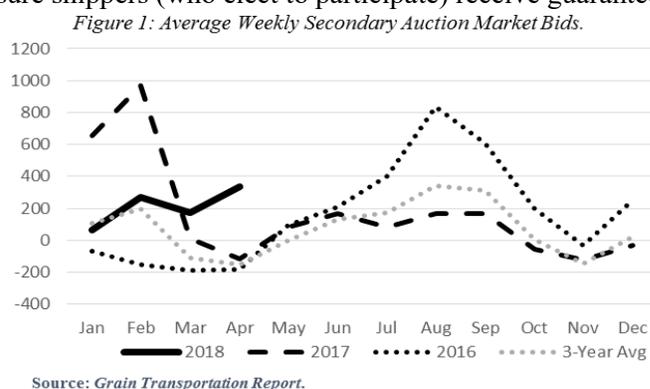
With service challenges impacting truck, barge, and rail during the first quarter of 2018, recent increases in demand for rail service, due to strong export sales, have come with higher prices in the secondary railcar shuttle market. As of April 26, average May bids in the secondary railcar shuttle market are \$600 per car above tariff rail rates,¹ down \$92 from last week, but still \$853 above the prior 3-year average. In addition, Class I grain carloading activity has been increasing over the past several weeks, with most of the increase on BNSF Railway. With many dynamics in play, this article discusses the factors contributing to the recent changes in secondary railcar shuttle rates, including an overview of service issues during the first quarter of 2018, and the increased demand for rail transportation from grain shippers.

Secondary Railcar Auction Market Rates

Primary and secondary railcar auction markets are a unique facet of grain transportation because they quickly adjust to changing market forces. Therefore, they serve as good indicators of unexpected changes in transportation supply and demand.² In the primary market, BNSF's Certificate of Transportation and Union Pacific's Grain Car Allocation System auction forward-guaranteed railcar service and, in the secondary market, shippers trade that service among themselves via third-party brokers. These auction markets ensure shippers (who elect to participate) receive guaranteed service instead of receiving it on a first come, first served basis. Escalating premiums above tariffs in these markets indicate increased demand for rail service and/or a reduction in railcar supply. Changes in secondary auction market rates can significantly impact transportation costs above tariffs for grain elevators, which in turn affects the prices farmers receive for their crop.

Rates in the secondary auction market for Union Pacific and BNSF have generally trended upward since January (Figure 1). While rates tended to be lower than 2017, they have been above-average, especially in recent weeks.

Railroads dealt with tough winter weather in 2017 (see the [February 23, 2017 GTR](#)). Multiple factors, including deteriorated service and growth in the demand for rail transportation from grain shippers, seem to be behind the increase in secondary railcar shuttle rates in 2018.



First Quarter Service Challenges

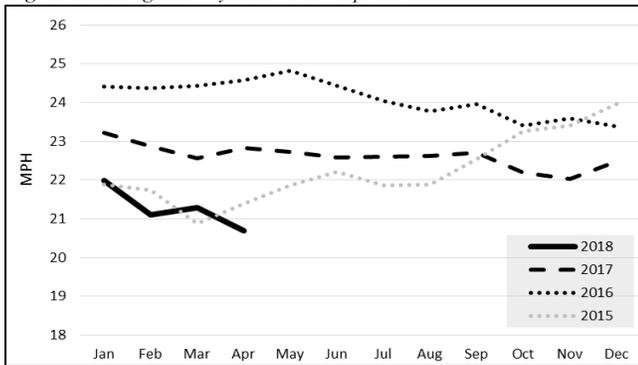
As mentioned in the [April 26, 2018 GTR](#), service challenges have affected transportation carriers' ability to move the large carry-over stocks from last summer and the bumper crop of 2017, resulting in record December grain stocks. Transportation issues during the first quarter of 2018 contributed to about 71 percent of stocks remaining in storage as of March 1, 2018.

- Long-term truck capacity issues reached a peak in December 2017/January 2018, causing widespread impacts across multiple segments of the trucking industry, including grain haulers.
- High-water conditions during the first quarter disrupted barge movements, resulting in higher rates and grain tonnages 15 percent lower than the 5-year average (see the [March 15, 2018 GTR](#)).
- Grain and other shipper organizations sent letters to the Surface Transportation Board (STB) in March over deteriorating rail service across the Class I network, prompting STB to request service outlooks from all Class I railroads. Between August 2017 and March 2018, average grain carloadings were 3 percent lower than the 3-year average. STB performance data show grain train speeds were slower than average and grain shippers faced increased dwell times (Figures 2, 3).

¹ 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.

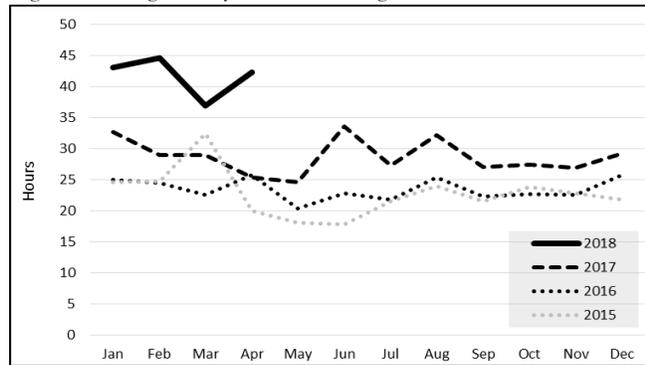
² For more information on railcar auction markets for grain, see the [February 19, 2015 GTR](#).

Figure 2: Average Weekly Grain Train Speeds.



Source: Surface Transportation Board

Figure 3: Average Weekly Grain Train Origin Dwell Times.



Source: Surface Transportation Board

Grain Exports

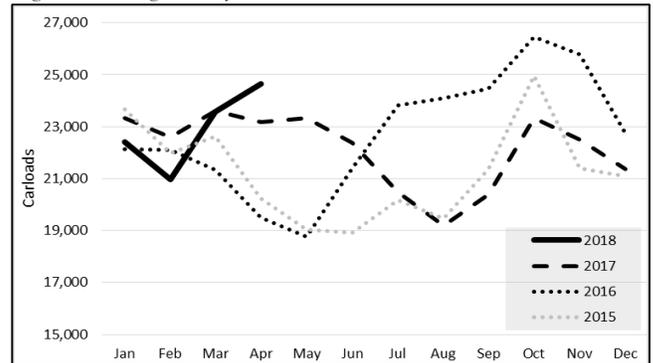
Rail supports a large share of the grain shipments destined for export, especially to certain regions like the Pacific Northwest (PNW). Despite logistical issues, demand for grain rail service to the PNW has been strong. Rail deliveries to the PNW are up 4 percent year-to-date, while rail deliveries to other destinations are below last year (**GTR Table 3**). As of April 26, year-to-date export corn inspections through the PNW are 30 percent above the same period last year, destined mostly to Japan (which accounts for 44 percent of PNW corn exports) and South Korea (37 percent of PNW corn exports). So far in 2018, 62 percent of U.S. corn inspected for export to Japan has come from Pacific ports and only 38 percent through the Gulf, a reversal from last year when the majority (58 percent) came through the Gulf. Between September 2017 and April 2018, USDA increased projected U.S. corn exports by 20 percent, corresponding to a 16 percent decrease in projected corn exports from Argentina due to dry conditions, and a 3 percent decrease from Brazil due to decreased second crop planting area for corn. Some of this increase was reflected in cumulative new export sales of corn between January and mid-March. These sales were 87 percent above the prior three-year average, resulting in unshipped export sales of corn hitting an all-time high of 23.5 million metric tons, for the week ending March 15. As of April 19, unshipped balances of corn have fallen 13 percent from the peak but are still 36 percent above last year.

Grain Traffic by Rail

At a point when grain carloads typically decrease from March into April, this year grain carloads have picked up in activity (Figure 4). For the week ending April 21, U.S. Class I railroads originated 25,938 grain carloads—the most so far in 2018—and surpassing all weekly totals in 2014, 2015, and 2017. Within the past five years, only 2016 saw larger weekly carloads (during the record harvest). High grain carloads are not typical this time of year. Grain by rail tends to peak during the fall harvest, with levels generally falling from late December through spring.

The recent boost in grain shipments by rail has not been seen across all major U.S. railroads. Over the last seven weeks, grain carloads are down 2 percent for Union Pacific and 15 percent for Norfolk Southern, compared to the 3-year average. Grain carloads are at the average for Kansas City Southern. Notably, originations of grain are up 11 percent for CSX and 24 percent for BNSF, reflected by above average bids on the secondary shuttle market to secure guaranteed capacity for BNSF grain service. BNSF is the primary rail supplier of corn to the PNW, and, as discussed previously, corn export shipments through the PNW are up substantially.

Figure 4: Average Weekly US Class I Grain Carloads.



Source: Association of American Railroads, Weekly Rail Traffic Report.

Conclusions

Secondary railcar shuttle rates are an important component of total transportation costs and also serve as a critical indicator of supply and demand changes in rail transportation. Strong weekly grain railcar loadings, lingering service challenges for barge and truck, and high remaining unshipped export balances could continue to exert pressure on the secondary railcar shuttle market.

adam.sparger@ams.usda.gov; petera.caffarelli@ams.usda.gov; jesse.gastelle@ams.usda.gov

Grain Transportation Indicators

Table 1

Grain Transport Cost Indicators¹

For the week ending	Truck	Rail		Barge	Ocean	
		Unit Train	Shuttle		Gulf	Pacific
05/02/18	212	275	240	243	198	170
04/25/18	210	275	244	294	197	170

¹Indicator: 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)

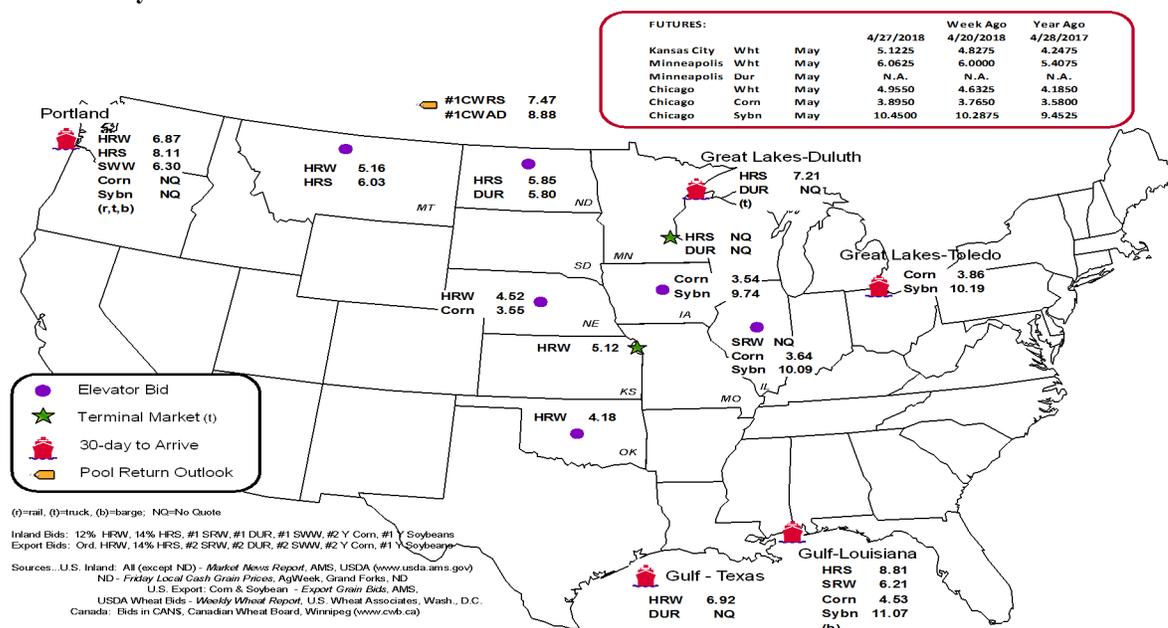
Commodity	Origin--Destination	4/27/2018	4/20/2018
Corn	IL--Gulf	-0.89	-0.89
Corn	NE--Gulf	-0.98	-0.94
Soybean	IA--Gulf	-1.33	-1.36
HRW	KS--Gulf	-1.80	-1.85
HRS	ND--Portland	-2.26	-2.31

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		Pacific	Atlantic &	Total	Week ending	Cross-Border Mexico ³
	Gulf	Texas Gulf	Northwest	East Gulf			
04/25/2018 ^p	691	1,316	6,226	927	9,160	4/21/2018	2,118
04/18/2018 ^r	295	966	7,361	707	9,329	4/14/2018	2,535
2018 YTD ^r	7,106	26,455	108,913	6,860	149,334	2018 YTD	30,965
2017 YTD ^r	12,371	32,966	104,981	9,704	160,022	2017 YTD	36,352
2018 YTD as % of 2017 YTD	57	80	104	71	93	% change YTD	85
Last 4 weeks as % of 2017 ²	183	78	110	250	110	Last 4wks % 2017	84
Last 4 weeks as % of 4-year avg. ²	94	76	135	206	122	Last 4wks % 4 yr	96
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.

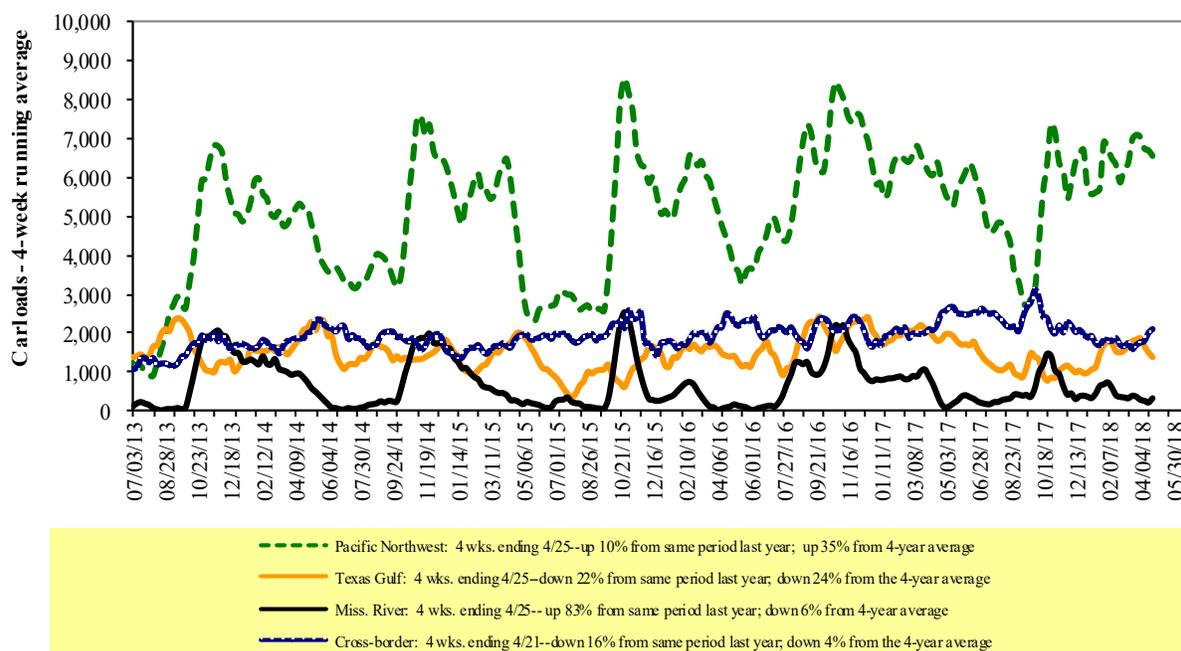
³ Cross-border weekly data is approximately 15 percent below the Association of American Railroads' reported weekly carloads received by Mexican railroads to reflect switching between KCSM and Grupo Mexico.

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: 4/21/2018	East		West			U.S. total	Canada	
	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	2,359	2,589	14,017	1,080	5,893	25,938	4,299	4,740
This week last year	2,053	2,833	10,892	911	6,825	23,514	4,189	4,551
2018 YTD	30,419	38,870	195,978	14,878	83,974	364,119	58,283	70,261
2017 YTD	30,302	45,290	180,129	15,620	99,100	370,441	64,076	68,927
2018 YTD as % of 2017 YTD	100	86	109	95	85	98	91	102
Last 4 weeks as % of 2017*	121	87	118	103	90	106	95	99
Last 4 weeks as % of 3-yr avg.**	117	84	129	101	103	114	105	106
Total 2017	89,465	142,820	578,964	50,223	289,574	1,151,046	198,633	244,766

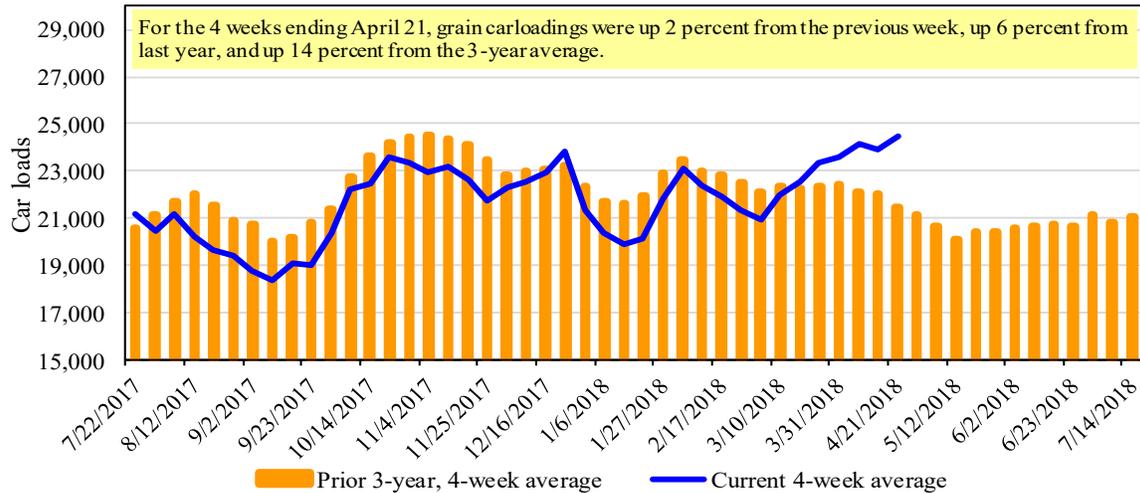
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

**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 Offerings¹ (\$/car)²

For the week ending: 4/26/2018		Delivery period							
		May-18	May-17	Jun-18	Jun-17	Jul-18	Jul-17	Aug-18	Aug-17
BNSF ³	COT grain units	0	no bids	0	no bids	no bids	no bids	0	no bids
	COT grain single-car ⁵	306	6	7	0	2	0	0	1
UP ⁴	GCAS/Region 1	no offer	no bids	no bids	no bids	no bids	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

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

²Average premium/discount to tariff, last auction

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

⁴UP - GCAS = Grain Car Allocation System

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

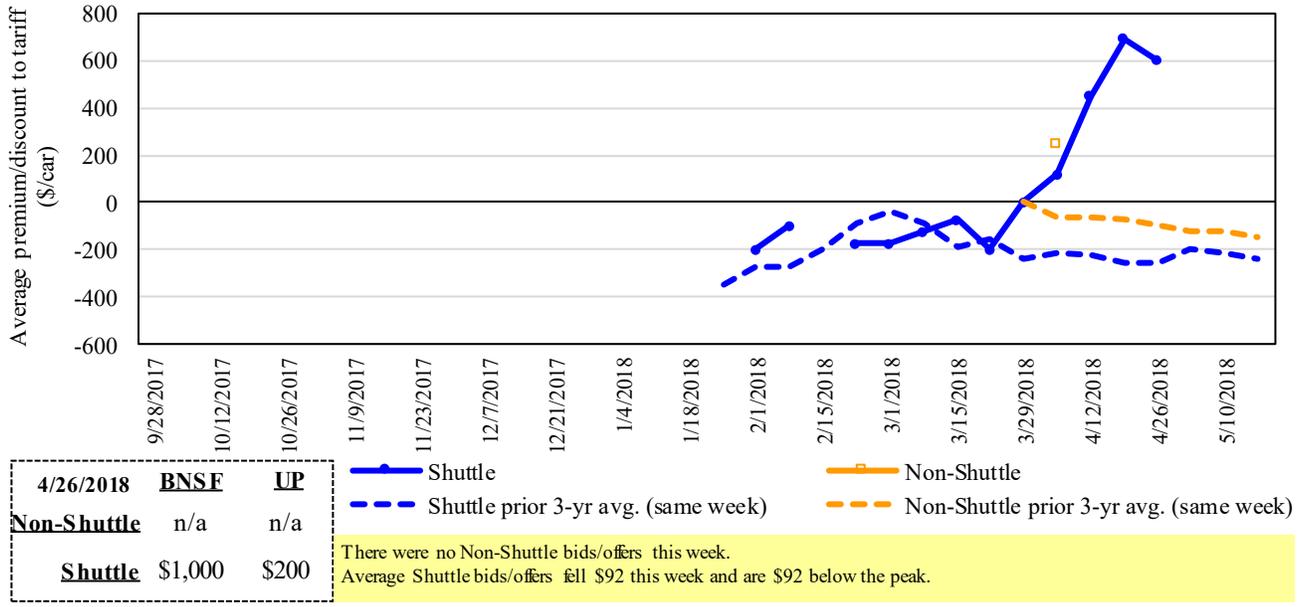
Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

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

Source: Transportation & Marketing Programs/AMS/USDA.

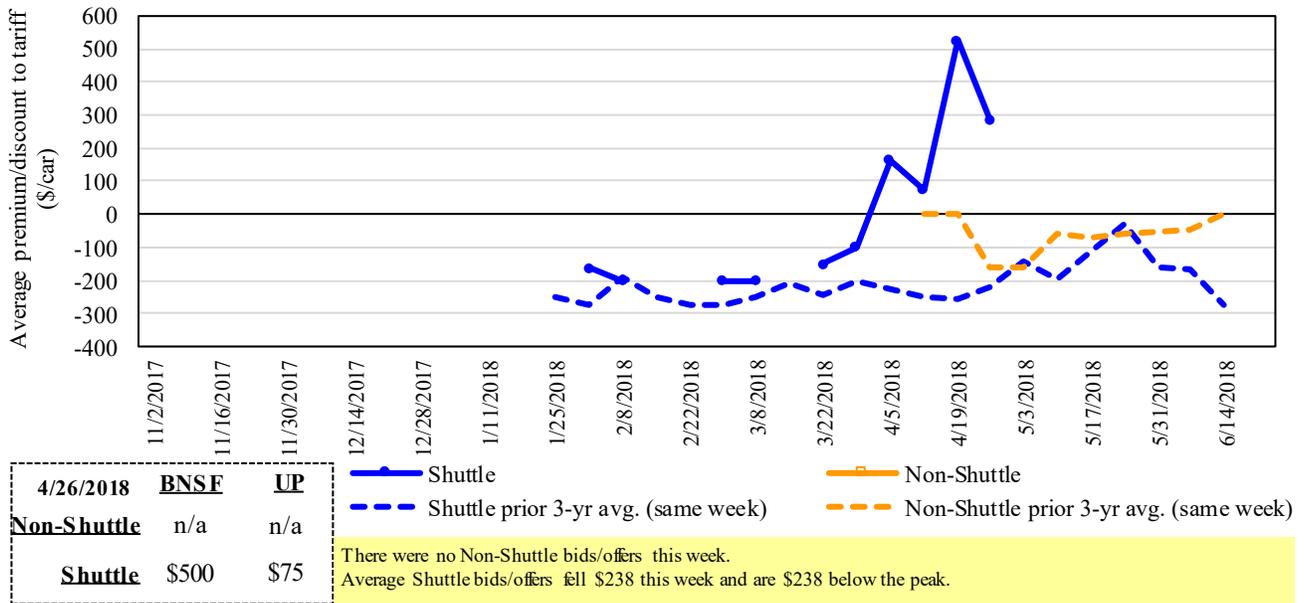
The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4
Bids/Offers for Railcars to be Delivered in May 2018, Secondary Market



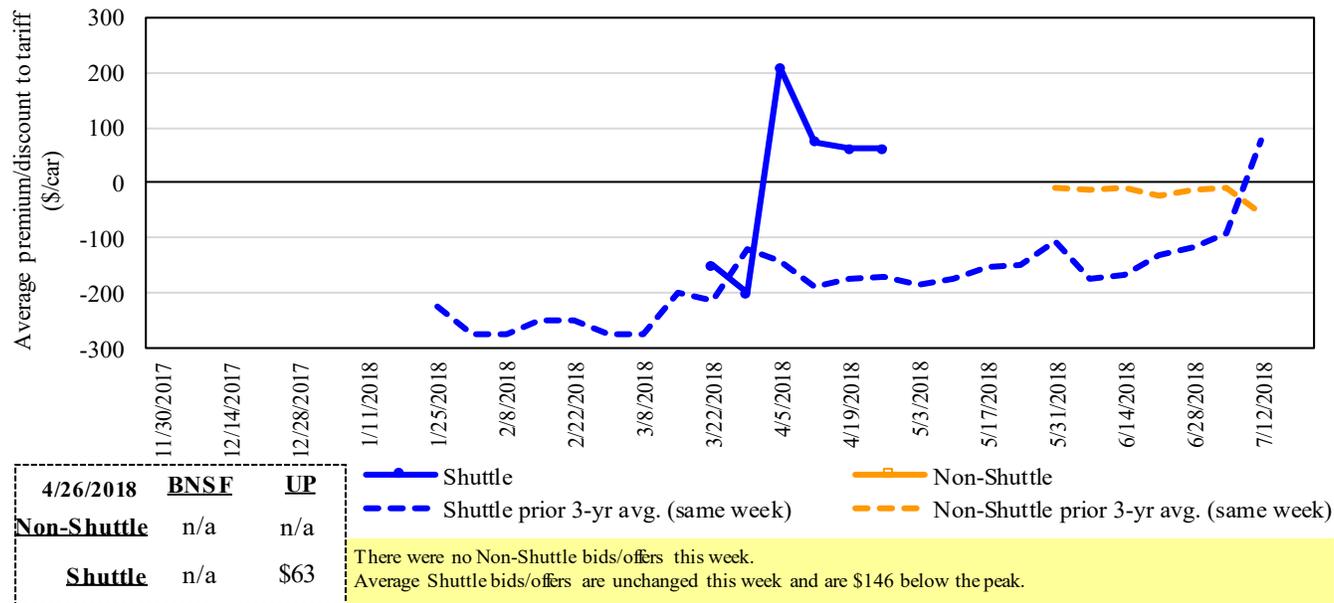
Non-shuttle bids include unit-train and single-car bids. n/a = not available.
 Source: Transportation & Marketing Programs/AMS/USDA

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



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 July 2018, Secondary Market



4/26/2018	BNSF	UP
Non-Shuttle	n/a	n/a
Shuttle	n/a	\$63

—●— Shuttle
- - - Shuttle prior 3-yr avg. (same week)
—□— Non-Shuttle
- - - Non-Shuttle prior 3-yr avg. (same week)

There were no Non-Shuttle bids/offers this week.
 Average Shuttle bids/offers are unchanged this week and are \$146 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: 4/26/2018		Delivery period					
		May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18
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 2017	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 2017	n/a	n/a	n/a	n/a	n/a	n/a
Shuttle	BNSF-GF	1000	500	n/a	n/a	n/a	n/a
	Change from last week	(200)	(400)	n/a	n/a	n/a	n/a
	Change from same week 2017	1163	700	n/a	n/a	n/a	n/a
	UP-Pool	200	75	63	200	250	350
	Change from last week	17	(75)	(1)	50	0	0
	Change from same week 2017	600	388	238	n/a	n/a	(350)

¹Average 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 Shipments¹

May, 2018	Origin region ³	Destination region ³	Tariff rate/car	Fuel surcharge per car	Tariff plus surcharge per:		Percent change Y/Y ⁴
					metric ton	bushel ²	
Unit train							
Wheat	Wichita, KS	St. Louis, MO	\$3,883	\$91	\$39.46	\$1.07	4
	Grand Forks, ND	Duluth-Superior, MN	\$4,143	\$0	\$41.14	\$1.12	0
	Wichita, KS	Los Angeles, CA	\$7,050	\$0	\$70.01	\$1.91	1
	Wichita, KS	New Orleans, LA	\$4,540	\$160	\$46.68	\$1.27	5
	Sioux Falls, SD	Galveston-Houston, TX	\$6,786	\$0	\$67.39	\$1.83	1
	Northwest KS	Galveston-Houston, TX	\$4,816	\$176	\$49.57	\$1.35	5
	Amarillo, TX	Los Angeles, CA	\$5,021	\$244	\$52.29	\$1.42	5
Corn	Champaign-Urbana, IL	New Orleans, LA	\$3,931	\$181	\$40.83	\$1.04	9
	Toledo, OH	Raleigh, NC	\$6,344	\$0	\$63.00	\$1.60	5
	Des Moines, IA	Davenport, IA	\$2,258	\$38	\$22.80	\$0.58	1
	Indianapolis, IN	Atlanta, GA	\$5,446	\$0	\$54.08	\$1.37	5
	Indianapolis, IN	Knoxville, TN	\$4,540	\$0	\$45.08	\$1.15	5
	Des Moines, IA	Little Rock, AR	\$3,609	\$113	\$36.96	\$0.94	3
	Des Moines, IA	Los Angeles, CA	\$5,327	\$328	\$56.16	\$1.43	5
Soybeans	Minneapolis, MN	New Orleans, LA	\$4,131	\$171	\$42.72	\$1.16	16
	Toledo, OH	Huntsville, AL	\$5,287	\$0	\$52.50	\$1.43	5
	Indianapolis, IN	Raleigh, NC	\$6,460	\$0	\$64.15	\$1.75	5
	Indianapolis, IN	Huntsville, AL	\$4,764	\$0	\$47.31	\$1.29	5
	Champaign-Urbana, IL	New Orleans, LA	\$4,745	\$181	\$48.92	\$1.33	7
Shuttle Train							
Wheat	Great Falls, MT	Portland, OR	\$3,953	\$0	\$39.26	\$1.07	0
	Wichita, KS	Galveston-Houston, TX	\$4,171	\$0	\$41.42	\$1.13	2
	Chicago, IL	Albany, NY	\$5,663	\$0	\$56.24	\$1.53	3
	Grand Forks, ND	Portland, OR	\$5,611	\$0	\$55.72	\$1.52	0
	Grand Forks, ND	Galveston-Houston, TX	\$5,931	\$0	\$58.90	\$1.60	0
	Northwest KS	Portland, OR	\$5,812	\$288	\$60.57	\$1.65	5
	Minneapolis, MN	Portland, OR	\$5,000	\$0	\$49.65	\$1.26	0
Corn	Sioux Falls, SD	Tacoma, WA	\$4,960	\$0	\$49.26	\$1.25	0
	Champaign-Urbana, IL	New Orleans, LA	\$3,731	\$181	\$38.85	\$0.99	9
	Lincoln, NE	Galveston-Houston, TX	\$3,700	\$0	\$36.74	\$0.93	0
	Des Moines, IA	Amarillo, TX	\$3,970	\$142	\$40.83	\$1.04	3
	Minneapolis, MN	Tacoma, WA	\$5,000	\$0	\$49.65	\$1.26	0
	Council Bluffs, IA	Stockton, CA	\$4,820	\$0	\$47.86	\$1.22	2
	Sioux Falls, SD	Tacoma, WA	\$5,600	\$0	\$55.61	\$1.51	0
Soybeans	Minneapolis, MN	Portland, OR	\$5,650	\$0	\$56.11	\$1.53	0
	Fargo, ND	Tacoma, WA	\$5,500	\$0	\$54.62	\$1.49	0
	Council Bluffs, IA	New Orleans, LA	\$4,775	\$209	\$49.49	\$1.35	7
	Toledo, OH	Huntsville, AL	\$4,352	\$0	\$43.22	\$1.18	3
	Grand Island, NE	Portland, OR	\$5,710	\$295	\$59.63	\$1.62	7

¹A 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.

²Approximate load per car = 111 short tons (100.7 metric tons): corn 56 lbs./bu., wheat and soybeans 60 lbs./bu.

³Regional economic areas are defined by the Bureau of Economic Analysis (BEA)

⁴Percentage change year over year calculated using tariff rate plus fuel surcharge

Table 8

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

Date: May, 2018			Fuel			Percent	
Commodity	Origin state	Destination region	Tariff rate/car ¹	surcharge per car ²	Tariff plus surcharge per:		change ⁴ Y/Y
					metric ton ³	bushel ³	
Wheat	MT	Chihuahua, CI	\$7,459	\$0	\$76.21	\$2.07	0
	OK	Cuautitlan, EM	\$6,631	\$125	\$69.03	\$1.88	1
	KS	Guadalajara, JA	\$7,309	\$321	\$77.95	\$2.12	3
	TX	Salinas Victoria, NL	\$4,292	\$77	\$44.64	\$1.21	2
Corn	IA	Guadalajara, JA	\$8,313	\$287	\$87.87	\$2.23	2
	SD	Celaya, GJ	\$7,700	\$0	\$78.68	\$2.00	2
	NE	Queretaro, QA	\$8,013	\$265	\$84.58	\$2.15	3
	SD	Salinas Victoria, NL	\$6,743	\$0	\$68.90	\$1.75	2
	MO	Tlalnepantla, EM	\$7,379	\$258	\$78.03	\$1.98	3
	SD	Torreón, CU	\$7,300	\$0	\$74.59	\$1.89	2
Soybeans	MO	Bojay (Tula), HG	\$8,134	\$268	\$85.84	\$2.33	-5
	NE	Guadalajara, JA	\$8,692	\$292	\$91.79	\$2.50	-2
	IA	El Castillo, JA	\$8,960	\$0	\$91.55	\$2.49	0
	KS	Torreón, CU	\$7,489	\$213	\$78.69	\$2.14	1
Sorghum	NE	Celaya, GJ	\$7,345	\$265	\$77.75	\$1.97	3
	KS	Queretaro, QA	\$7,819	\$157	\$81.49	\$2.07	4
	NE	Salinas Victoria, NL	\$6,452	\$126	\$67.20	\$1.71	5
	NE	Torreón, CU	\$6,790	\$205	\$71.47	\$1.81	4

¹Rates 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.

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

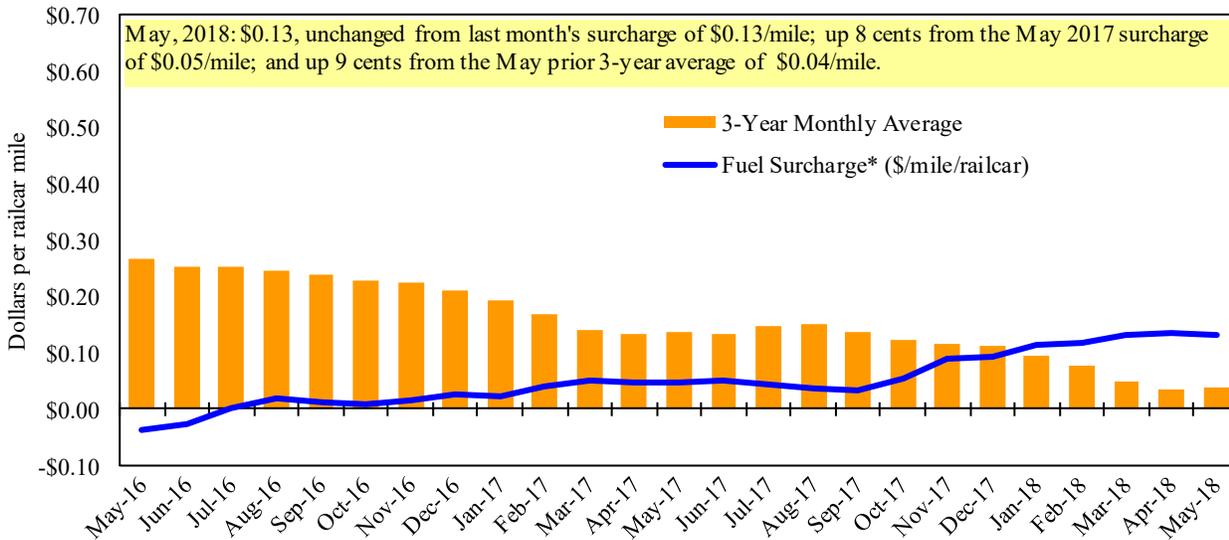
³Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

⁴Percentage change calculated using tariff rate plus fuel surcharge

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

Figure 7

Railroad Fuel Surcharges, North American Weighted Average¹



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.

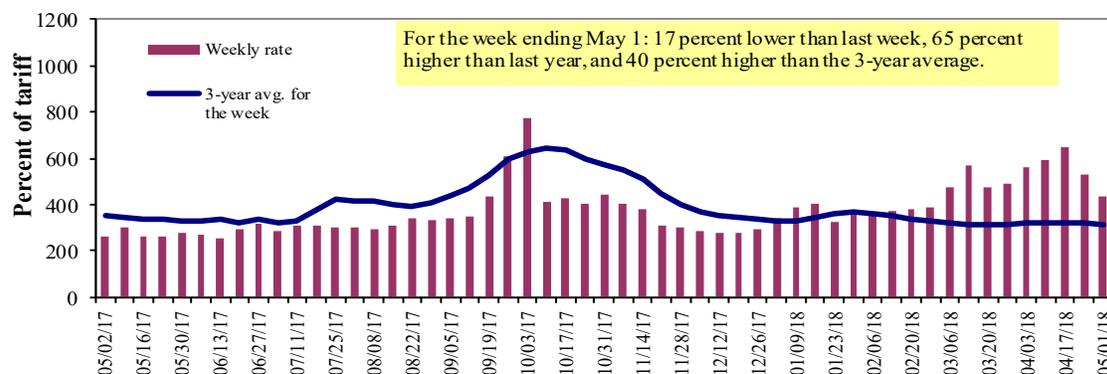
** CSX strike price changed from \$2.00/gal. to \$3.75/gal. starting January 1, 2015.

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}



¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-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	5/1/2018	-	438	438	350	392	392	338
	4/24/2018	600	530	530	420	475	475	375
\$/ton	5/1/2018	-	23.30	20.32	13.97	18.38	15.84	10.61
	4/24/2018	37.14	28.20	24.59	16.76	22.28	19.19	11.78
Current week % change from the same week:								
	Last year	-	59	65	91	118	118	95
	3-year avg. ²	-	37	40	50	70	70	60
Rate ¹	May	488	425	418	325	363	363	313
	July	483	433	428	333	380	380	300

¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-week moving average; ton = 2,000 pounds; "-" = no quote

Source: Transportation & Marketing Programs/AMS/USDA

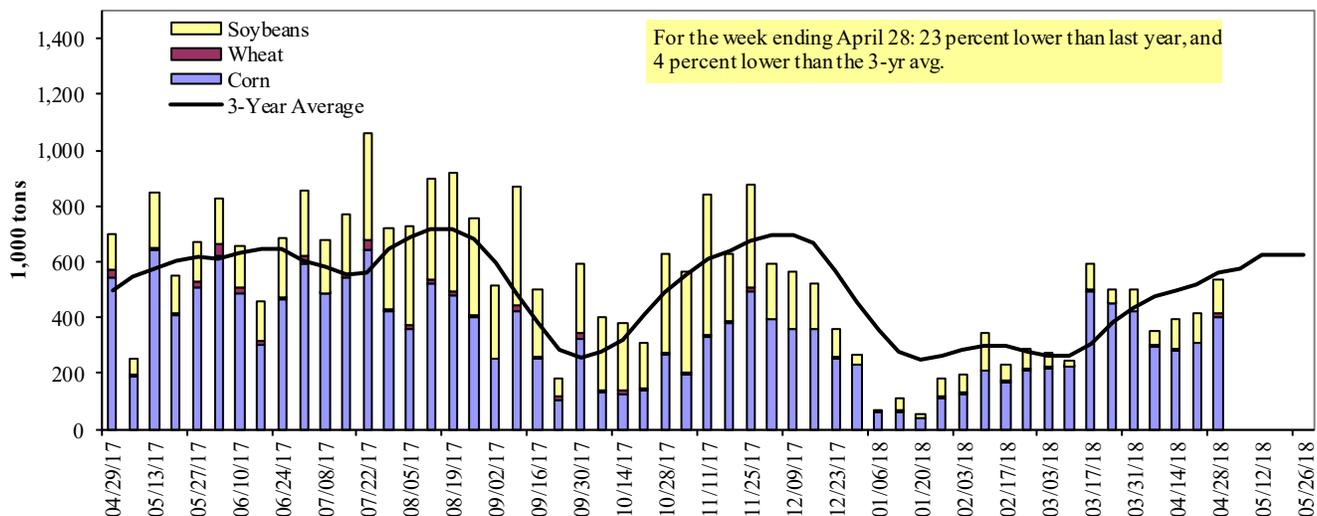
Figure 9 Benchmark tariff rates

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 River¹ (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 04/28/2018	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	233	5	37	0	275
Winfield, MO (L25)	274	5	77	6	362
Alton, IL (L26)	394	10	128	6	538
Granite City, IL (L27)	402	10	125	6	543
Illinois River (L8)	88	3	35	0	126
Ohio River (L52)	119	12	37	0	168
Arkansas River (L1)	4	7	17	0	28
Weekly total - 2018	525	29	179	6	739
Weekly total - 2017	627	39	163	2	831
2018 YTD ¹	5,796	502	3,491	53	9,842
2017 YTD	8,053	741	4,299	135	13,227
2018 as % of 2017 YTD	72	68	81	40	74
Last 4 weeks as % of 2017 ²	79	54	94	123	81
Total 2017	22,242	2,210	16,123	360	40,936

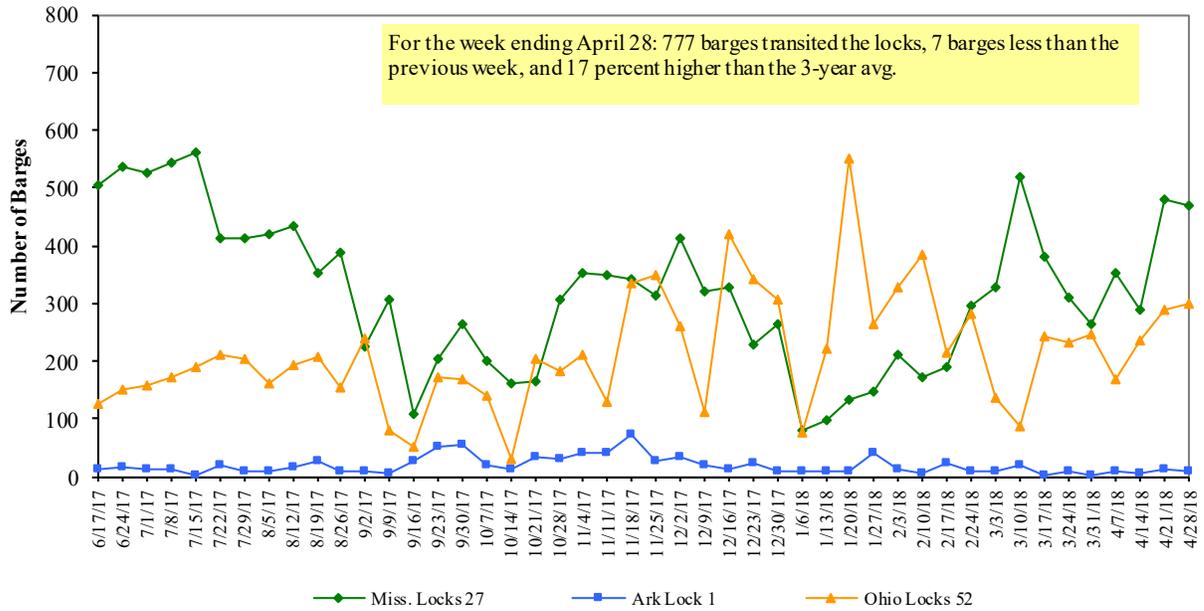
¹ Weekly total, YTD (year-to-date) and calendar year total includes Miss/27, Ohio/52, and Ark/1; "Other" refers to oats, barley, sorghum, and rye.

² As a percent of same period in 2017.

Note: Total may not add exactly, due to rounding.

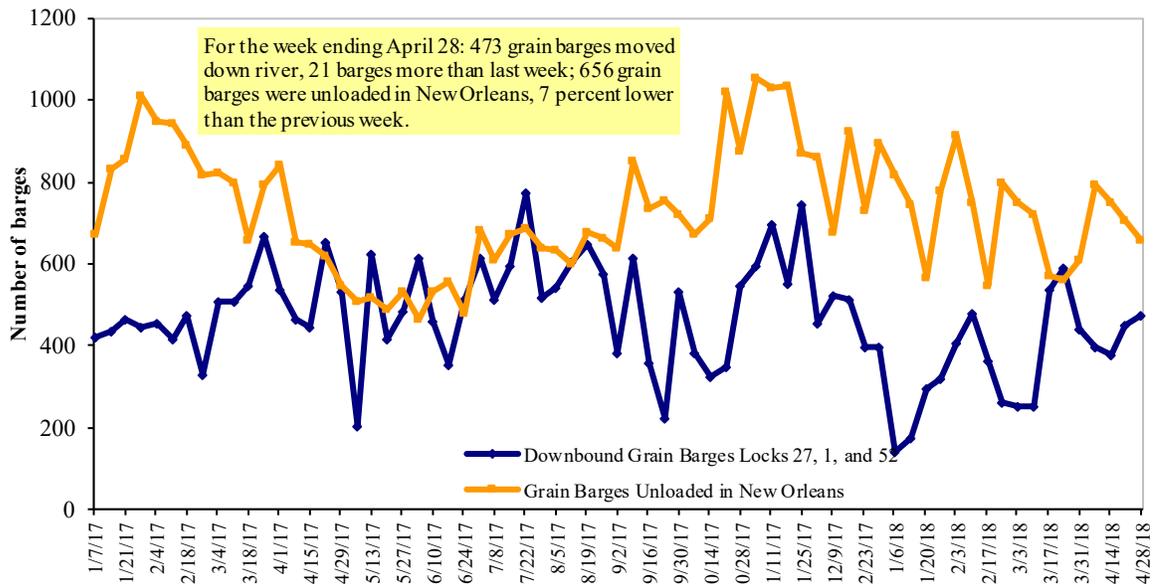
Source: U.S. Army Corps of Engineers

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 4/30/2018 (US \$/gallon)

Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	3.162	0.020	0.538
	New England	3.203	0.032	0.550
	Central Atlantic	3.321	0.026	0.548
	Lower Atlantic	3.042	0.014	0.529
II	Midwest ²	3.083	0.036	0.567
III	Gulf Coast ³	2.946	0.010	0.511
IV	Rocky Mountain	3.215	0.034	0.549
V	West Coast	3.640	0.024	0.776
	West Coast less California	3.394	0.028	0.619
	California	3.834	0.019	0.897
Total	U.S.	3.157	0.024	0.574

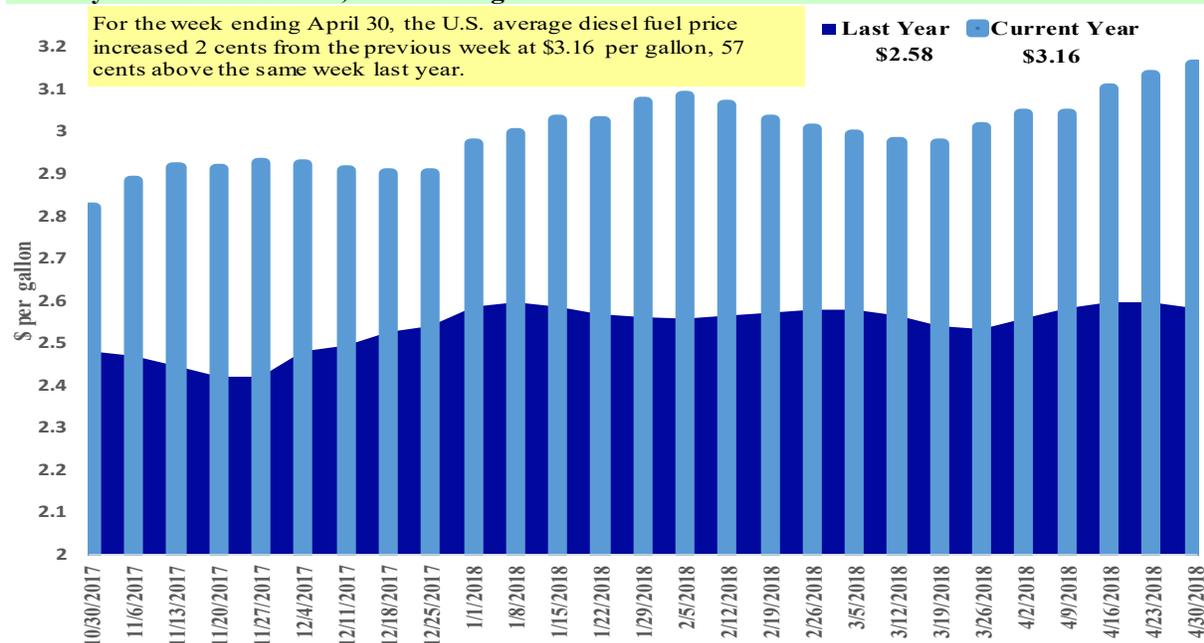
¹Diesel fuel prices include all taxes. Prices represent an average of all types of diesel fuel.

²Same as North Central ³Same 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						Corn	Soybeans	Total
	HRW	SRW	HRS	SWW	DUR	All wheat			
Export Balances¹									
4/19/2018	662	386	1,071	738	43	2,901	20,546	11,560	35,006
This week year ago	1,678	387	1,423	1,270	124	4,882	15,057	7,156	27,095
Cumulative exports-marketing year²									
2017/18 YTD	8,497	2,062	4,982	4,478	351	20,368	29,436	42,847	92,651
2016/17 YTD	9,888	2,026	7,011	3,525	383	22,833	35,987	49,202	108,021
YTD 2017/18 as % of 2016/17	86	102	71	127	91	89	82	87	86
Last 4 wks as % of same period 2016/17	49	121	87	68	48	71	145	154	134
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 Importers¹ of U.S. Corn

For the week ending 4/19/2018	Total Commitments ²		% change current MY from last MY	Exports ³ 3-year avg 2014-2016
	2017/18	2016/17		
	Current MY	Last MY		
- 1,000 mt -				
Mexico	12,735	12,219	4	12,297
Japan	9,194	9,928	(7)	11,450
Korea	4,049	5,335	(24)	4,494
Colombia	3,657	3,896	(6)	4,179
Peru	2,532	2,609	(3)	2,693
Top 5 Importers	32,166	33,987	(5)	35,113
Total US corn export sales	49,982	51,044	(2)	49,308
% of Projected	88%	87%		
Change from prior week ²	697	988		
Top 5 importers' share of U.S. corn export sales	64%	67%		71%
USDA forecast, April 2018	56,616	58,346	(3)	
Corn Use for Ethanol USDA forecast, April 2018	141,605	137,973	3	

¹ Based on FAS Marketing Year Ranking Reports for 2016/17 - 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/esquery/. 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 Importers¹ of U.S. Soybeans

For the week ending 4/19/2018	Total Commitments ²		% change current MY from last MY	Exports ³ 3-yr avg. 2014-2016
	2017/18	2016/17		
	Current MY	Last MY		
	- 1,000 mt -			- 1,000 mt -
China	28,867	35,723	(19)	31,881
Mexico	3,923	3,411	15	3,452
Indonesia	1,906	1,757	8	1,987
Japan	1,838	1,938	(5)	2,067
Netherlands	1,267	1,408	(10)	2,098
Top 5 importers	37,802	44,237	(15)	41,486
Total US soybean export sales	54,407	56,358	(3)	52,919
% of Projected	97%	95%		
Change from prior week ²	371	733		
Top 5 importers' share of U.S. soybean export sales	69%	78%		78%
USDA forecast, April 2018	56,267	59,237	95	

(n) indicates negative number.

¹ Based on FAS Marketing Year Ranking Reports for 2016/17 - 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 and/or accumulated sales³ FAS Marketing Year Final Reports - www.fas.usda.gov/export-sales/myfi_rpt.htm. (Carryover plus Accumulated Exports)

Table 15

Top 10 Importers¹ of All U.S. Wheat

For the week ending 4/19/2018	Total Commitments ²		% change current MY from last MY	Exports ³ 3-yr avg 2014-2016
	2017/18	2016/17		
	Current MY	Last MY		
	- 1,000 mt -			- 1,000 mt -
Japan	2,898	2,761	5	2,620
Mexico	2,876	3,153	(9)	2,743
Philippines	2,582	2,597	(1)	2,395
Brazil	128	1,215	(89)	862
Nigeria	1,188	1,571	(24)	1,254
Korea	1,435	1,389	3	1,104
China	894	1,419	(37)	1,623
Taiwan	1,134	1,044	9	768
Indonesia	1,130	1,078	5	726
Colombia	265	506	(48)	635
Top 10 importers	14,530	16,733	(13)	14,729
Total US wheat export sales	23,269	27,715	(16)	22,804
% of Projected	92%	96%		
Change from prior week ²	297	62		
Top 10 importers' share of U.S. wheat export sales	62%	60%		65%
USDA forecast, April 2018	25,204	28,747	(12)	

(n) indicates negative number.

¹ Based on FAS Marketing Year Ranking Reports for 2016/17 - 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 sales³ 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 04/26/18	Previous Week*	Current Week as % of Previous	2018 YTD*	2017 YTD*	2018 YTD as % of 2017 YTD	Last 4-weeks as % of:		2017 Total*
							Last Year	Prior 3-yr. avg.	
Pacific Northwest									
Wheat	263	398	66	3,947	4,714	84	86	108	14,805
Corn	404	599	67	6,542	5,042	130	144	181	10,928
Soybeans	145	72	202	3,877	3,935	99	43	74	13,246
Total	812	1,069	76	14,366	13,691	105	102	135	38,978
Mississippi Gulf									
Wheat	34	108	31	1,479	1,597	93	83	106	4,198
Corn	812	819	99	10,629	12,945	82	128	134	28,690
Soybeans	298	277	107	8,525	10,084	85	72	100	32,911
Total	1,144	1,205	95	20,633	24,626	84	107	123	65,800
Texas Gulf									
Wheat	42	90	46	1,510	2,271	67	42	63	6,354
Corn	22	31	71	216	316	68	177	149	733
Soybeans	0	0	n/a	0	0	n/a	n/a	n/a	292
Total	64	122	52	1,726	2,588	67	52	73	7,379
Interior									
Wheat	17	47	36	488	592	82	101	83	1,727
Corn	191	204	94	2,520	2,515	100	103	119	8,758
Soybeans	162	131	124	2,034	1,727	118	129	163	5,508
Total	370	382	97	5,041	4,834	104	111	128	15,993
Great Lakes									
Wheat	41	34	119	98	85	115	102	126	711
Corn	3	23	14	26	0	n/a	n/a	82	192
Soybeans	0	0	n/a	0	53	0	0	0	890
Total	44	57	77	124	137	90	81	92	1,793
Atlantic									
Wheat	0	0	n/a	64	37	174	0	0	46
Corn	7	31	22	38	5	831	n/a	455	32
Soybeans	55	17	323	804	794	101	167	290	2,001
Total	62	48	129	906	835	108	194	203	2,079
U.S. total from ports*									
Wheat	396	678	58	7,585	9,295	82	76	96	27,841
Corn	1,440	1,708	84	19,971	20,824	96	130	144	49,333
Soybeans	660	497	133	15,240	16,592	92	77	113	54,847
Total	2,496	2,882	87	42,796	46,710	92	103	125	132,021

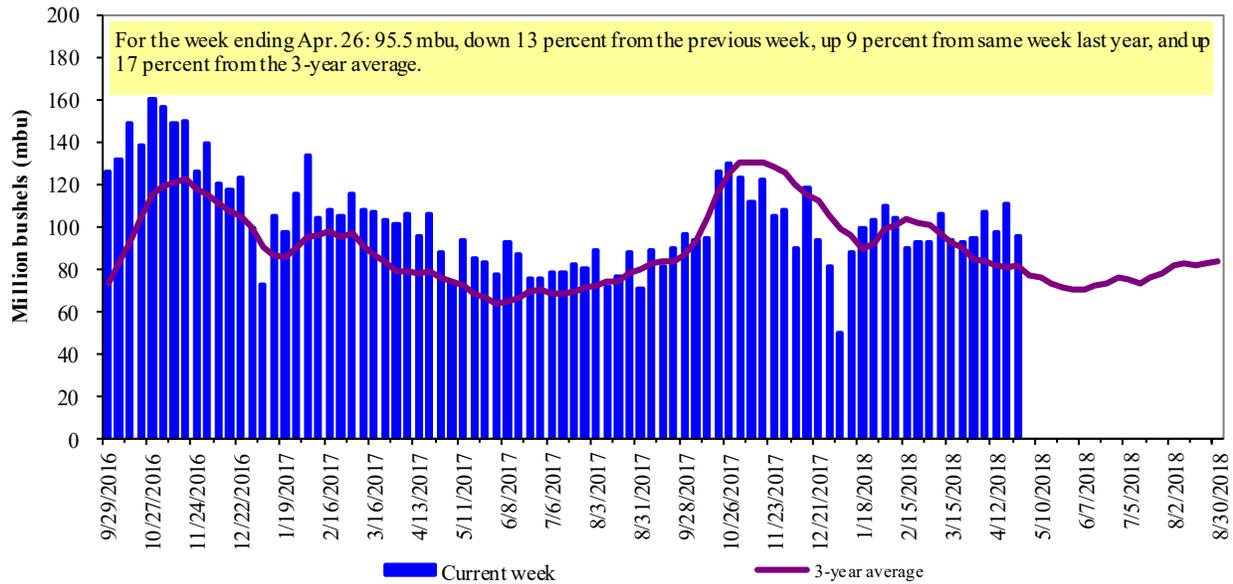
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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, 35 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)

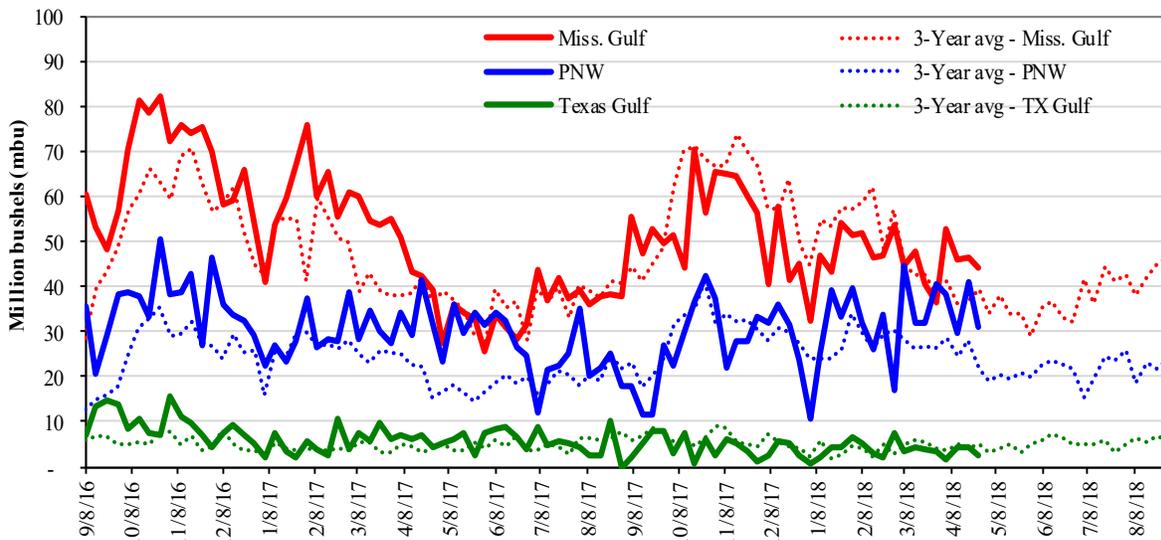


Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov)

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

Figure 15

U.S. Grain Inspections: U.S. Gulf and PNW¹ (wheat, corn, and soybeans)



<u>Week ending 04/26/18 inspections (mbu):</u>		<u>Percent change from:</u>			
Mississippi Gulf:	44.2	Last Week:	down 5	down 47	down 9
PNW:	30.9	Last Year (same week):	up 12	down 47	up 6
Texas Gulf:	2.4	3-yr avg. (4-wk. mov. Avg):	up 15	down 45	up 9
					down 24
					down 2
					up 20

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

Ocean Transportation

Table 17

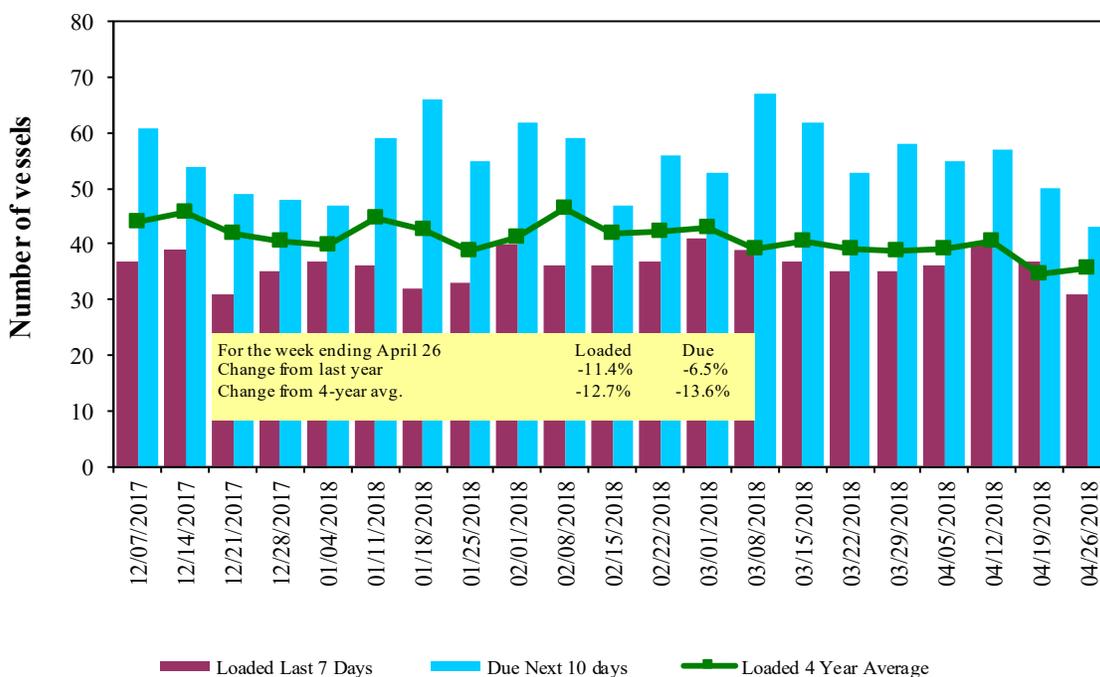
Weekly Port Region Grain Ocean Vessel Activity (number of vessels)

Date	Gulf			Pacific Northwest
	In port	Loaded 7-days	Due next 10-days	In port
4/26/2018	48	31	43	26
4/19/2018	55	37	50	28
2017 range	(25..66)	(28..54)	(37..87)	(5..44)
2017 avg	46	38	56	20

Source: Transportation & Marketing Programs/AMS/USDA

Figure 16

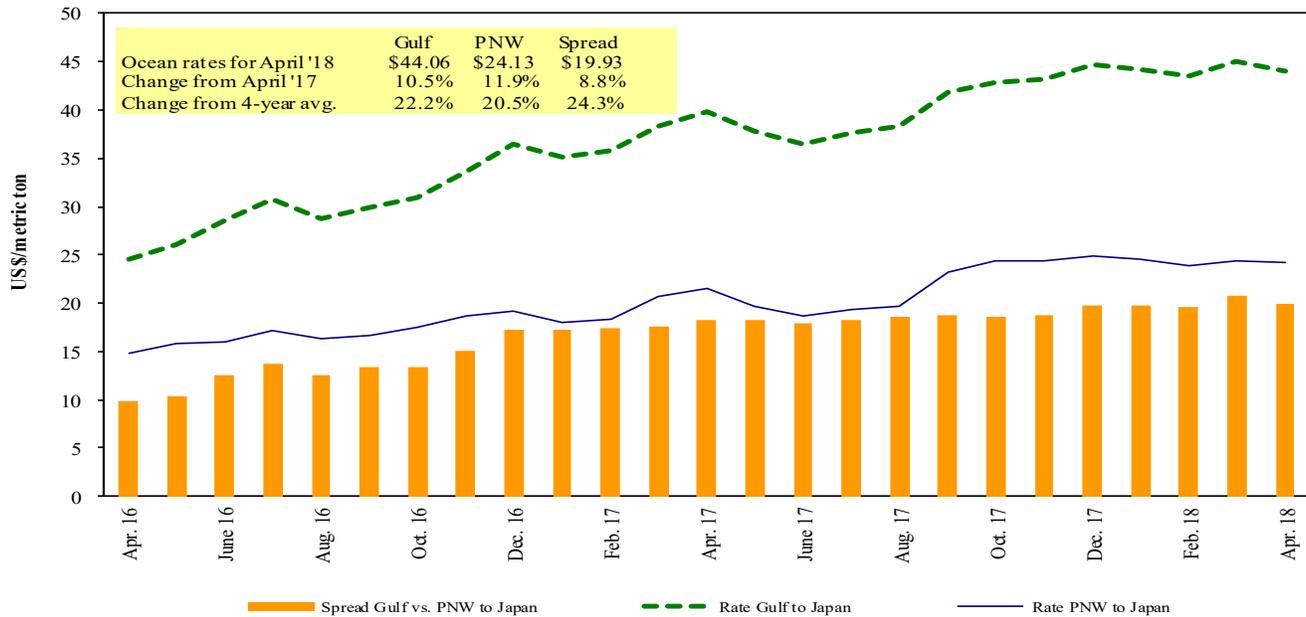
U.S. Gulf Vessel Loading Activity



Source: Transportation & Marketing Programs/AMS/USDA
 1U.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 04/28/2018

Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US\$/metric ton)
U.S. Gulf	Djibouti	Sorghum	Apr 16/26	18,200	69.87*
U.S. Gulf	Rotterdam	Heavy Grain	Apr 17/30	65,000	21.00
U.S. Gulf	Somalia	Sorghum	Apr 16/26	40,000	130.77*
PNW	Bangladesh	Wheat	Apr 6/16	43,500	46.61*
Brazil	China	Heavy Grain	May 3/31	60,000	35.50
Brazil	China	Heavy Grain	Apr 25/30	60,000	35.00
Brazil	China	Heavy Grain	Apr 20/30	60,000	34.00
Brazil	China	Heavy Grain	Apr 3/12	66,000	36.25
Brazil	China	Heavy Grain	Mar 12/21	66,000	32.00
Brazil	China	Heavy Grain	Mar 1/10	66,000	30.00
EC S. America	China	Heavy Grain	Mar 15/24	60,000	33.50

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

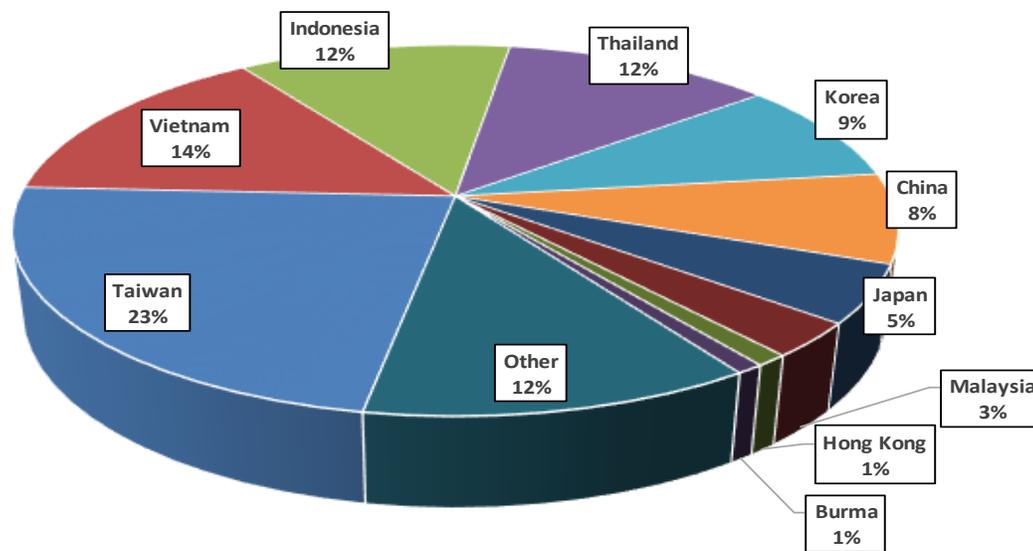
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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-February 2018

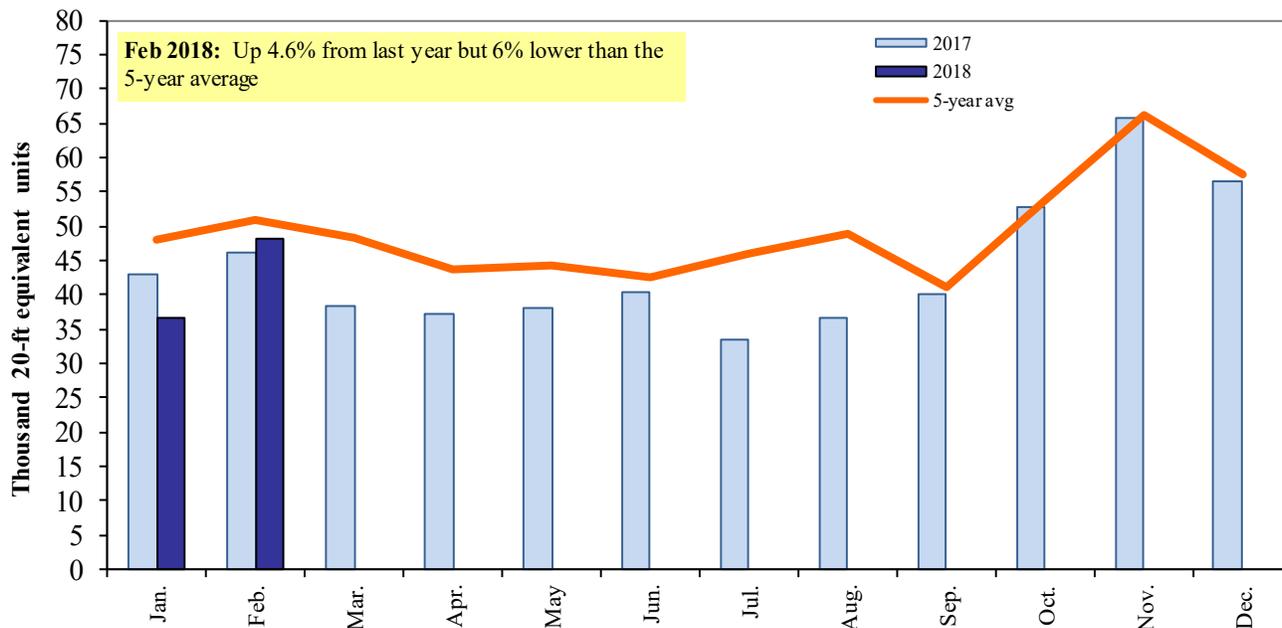


Service (PIERS) data

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.

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*).

Preferred citation: U.S. Dept. of Agriculture, Agricultural Marketing Service. *Grain Transportation Report*. May 3, 2018. Web: <http://dx.doi.org/10.9752/TS056.05-03-2018>

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer, and lender.