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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July 25, 2019

Contents

The next release is August 1, 2019

WEEKLY HIGHLIGHTS

Grain Inspections Lowest Since Early January

For the week ending July 18, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions reached 1.48 million metric tons (mmt). This amount is down 24 percent from the previous week, down 42 percent from last year, and 36 percent below the 3-year average. Weekly inspections are also the lowest since the first week of January. Although wheat inspections increased 24 percent from the previous week, the increase could not offset the large drop in corn and soybean inspections. Grain inspections decreased 52 percent from the previous week in the Mississippi Gulf and 24 percent in the Pacific Northwest (PNW). Despite the overall drop in inspections of grain, Texas Gulf grain inspections jumped 75 percent from the past week and are up 85 percent from year-to-date.

Ongoing Highwater Still Disrupting Barge Traffic

Ongoing highwater conditions continue to disrupt barge movements throughout the inland waterways. Conditions on the Upper Mississippi River from Burlington, IA, to St. Louis, MO, have improved to allow southbound traffic of 15-barge tows. However, due to poorer navigation conditions above Burlington, southbound traffic is limited to 9 to 12 barges per tow. There are tow size restrictions on the lower Mississippi River, along with daylight only passage under bridges at Vicksburg, MS, and Baton Rouge, LA. Lock repairs and highwater have slowed traffic on the Upper Illinois River. The Ohio River is experiencing highwater, while the Arkansas River is still impacted by historic flooding. Overall conditions are improving as the U.S. Army Corps of Engineers reports that regional forecasts show that on or about August 1, most Mississippi River gauges will be out of flood stage.

Diesel Fuel Prices Lower as Crude Oil Prices Soften

During the week ending July 22, the average U.S. on-highway **diesel fuel price** was $3.044 per gallon, 0.7 cents lower than the previous week and 17.6 cents lower than the same week in 2018. Prices have fallen nearly 13 cents per gallon since mid-May. The Energy Information Administration (EIA) reports crude oil prices were down approximately 10 percent in June, compared with April and May. EIA's Short-Term Energy Outlook further explains, "The recent price declines largely reflect increasing uncertainty about global oil demand growth as a result of increasingly weak global economic signals. Weakening oil demand, combined with strong supply growth in the United States, has helped build global oil inventories so far in 2019 and has limited any sustained upward pressure on oil prices."

Snapshots by Sector

Export Sales

For the week ending July 11, **unshipped balances** of wheat, corn, and soybeans totaled 19.1 mmt. This indicates a 13 percent decrease in outstanding sales, compared to the same time last year. Net **corn export sales** reached .200 mmt, down 60 percent from the previous week. Net **soybean export sales** totaled .128 mmt, down 17 percent from the past week. Net weekly **wheat export sales** reached .347 mmt, up 22 percent from the previous week.

Rail

U.S. Class I railroads originated 24,219 **grain carloads** for the week ending July 13. This is a 2 percent increase from the previous week, 2 percent lower than last year, and 1 percent below the 3-year average.

Average August shuttle **secondary railcar** bids/offers (per car) were $56 below tariff for the week ending July 18. This is $33 less than last year. There were no shuttle bids/offers last week. Average non-shuttle bids/offers were $100 above tariff, up $25 from last week. There were no non-shuttle bids/offers this week last year.

Barge

For the week ending July 20, **barge grain movements** totaled 773,168 tons. This is a 14 percent increase from the previous week and 19 percent higher than the same period last year.

For the week ending July 20, 490 grain barges **moved down river**. This is 62 more barges than the previous week. There were 415 grain barges **unloaded in New Orleans**, 39 percent more than the previous week.

Ocean

For the week ending July 18, 18 **ocean-going grain vessels** were loaded in the Gulf. This is 47 percent fewer than the same period last year. Fifty-nine vessels are expected to be loaded within the next 10 days. This is 5 percent more than the same period last year.

As of July 18, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $49.50. This is 6 percent more than the previous week. The rate from the PNW to Japan was $27.00 per mt, 6 percent more than the previous week.

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Feature Article/Calendar

2nd Quarter Bulk Ocean Freight Rates Below Last Year, But Above 4-Year Average

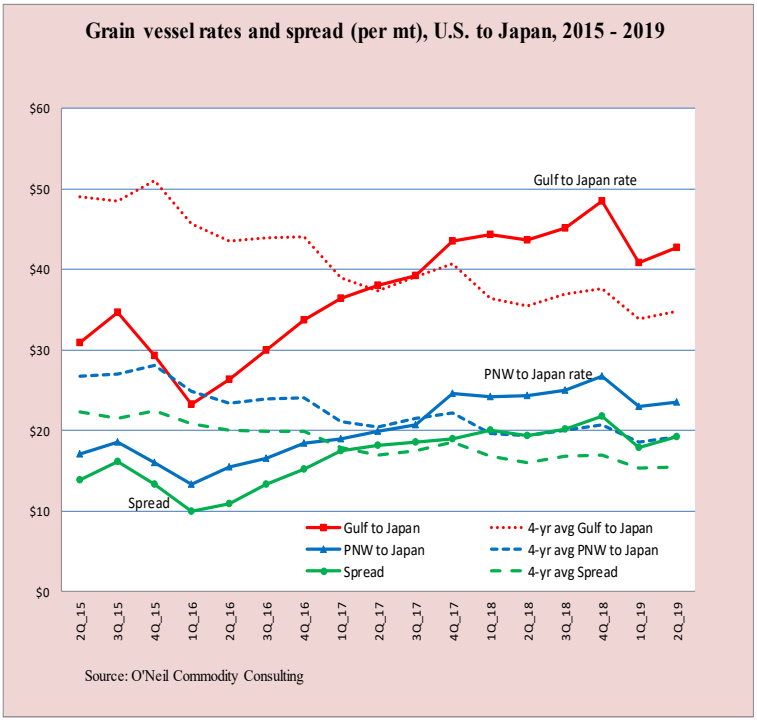
During the second quarter of 2019, ocean freight rates for shipping bulk grains were below the same period a year ago. The rates were above the 4-year average and mixed, compared to the previous quarter. Although the rates were lower than last year, they were higher than each of the prior three years, making them higher than the 4-year average. Ocean freight rates for shipping bulk grains from the U.S. Gulf to Japan averaged $42.78 per metric ton (mt), 2 percent below the same period last year, 23 percent above the 4-year average, and 5 percent more than the previous quarter (see table 1 and figure below). The rates from the Pacific Northwest (PNW) to Japan averaged $23.56 per mt. This is 3 percent lower than last year, but 23 and 3 percent higher than the 4-year average and the previous quarter, respectively. It cost $16.62 to ship a metric ton of grain from the U.S. Gulf to Europe, 20 percent less than last year, 6 percent more than the 4-year average, and 1 percent less than the previous quarter.

Table 1. Ocean freight rates for grain routes during the second quarter 2019

Route	Apr.	May	June	2nd quarter 2019	Change from		
					1st qtr '19	2nd qtr '18	4-yr avg
	--$/mt--			--$/mt--	Percent		
U.S. Gulf to Japan	42.06	43.10	43.19	42.78	4.7	-2	23
PNW to Japan	23.31	23.55	23.81	23.56	2.5	-3	23
Spread	18.75	19.55	19.38	19.23	8	0	24
U.S. Gulf to Europe	15.31	17.05	17.50	16.62	-1	-20	6

*Spread is the difference between ocean freight rates for shipping grain from the U.S. Gulf to Japan and PNW to Japan
Source: O'Neil Commodity Consulting

Although Gulf-to-Japan and PNW-to-Japan rates were slightly lower than a year ago, the rates were pushed up from the previous quarter due to firm coal and iron ore trade during the quarter. Electric consumption increased in Asia during the peak summer season. This resulted in an increase in non-coking coal trade, which boosted the demand for Panamax vessels. Strong steel production and declining iron ore inventories in China boosted iron ore imports. In addition, increased Chinese importation of soybeans from Brazil increased haulage length and benefitted dry bulk vessel operators.



Current Market Analysis and Outlook

As of July 11, the rate for shipping a metric ton of grain from the U.S. Gulf to Japan was $46.50, 1 percent less than the beginning of the year, but 2 percent above the same period last year. The rate from the PNW to Japan was $25.50 per mt, 6 and 3 percent more than the beginning of the year and same period a year ago, respectively. Although the rates have been fluctuating and increasing in recent weeks, the rates are still relatively low,

compared to the historical highs. Ocean freight rates have been moderated by excess vessel supply in the market. Despite the relatively low ocean freight rates, new vessel deliveries have increased. According to Drewry Maritime Research (Drewry), new vessel deliveries have increased about 16 percent during the first half of 2019, compared to the same period in 2018. This has resulted in a 2 percent increase in the dry bulk fleet, with a little over 3 percent of the existing fleet still scheduled for delivery during the second half of 2019. Table 2 shows the number and capacity of the dry bulk fleet over time. Between December 2012 and June 2019, the global dry bulk capacity has increased by 180.5 million deadweight tonnages (mdwt), a 27 percent increase. During the same period, the Panamax vessel fleet has increased by 61 percent to 65.9 mdwt.

Table 2: Global dry bulk operating fleet, December 2012-2018, June 2019 — As of June

Type of vessel	Size (dwt)	2012		2013		2014		2015		2016		2017		2018*		2019*	
		No. of Vessels	Capacity mdwt	No. of Vessels	Capacity mdwt	No. of Vessels	Capacity mdwt	No. of Vessels	Capacity mdwt	No. of Vessels	Capacity mdwt	No. of Vessels	Capacity mdwt	No. of Vessels	Capacity mdwt	No. of Vessels	Capacity mdwt
Handysize	10,000-40,000	3,000	84.3	3,002	84.9	3,114	88.5	3,246	91.8	3,317	93.9	3,373	96.4	3,430	98.4	3,472	99.9
Handymax/Supamax*	40,000-65,000	2,654	137.9	2,973	157.5	3,118	166.1	3,310	178.4	3,431	187.4	3,550	195.8	3,601	199.1	3,647	202.1
Panamax	65,000-85,000	1,481	107.7	1,917	146.3	2,023	155.2	2,059	158.8	2,047	159.0	2,107	164.3	2,158	168.4	2,221	173.6
Post-Panamax	85,000-120,000	798	69.8	503	48.8	530	51.5	530	51.4	544	52.7	554	53.6	566	54.7	572	55.3
Capesize	120,000-220,000	1,165	197.2	1,257	223.2	1,312	234.2	1,293	233.1	1,313	238.8	1,352	247.4	1,357	248.7	1,354	248.6
Vloc	220,000+	306	77.7	203	59.7	212	62.1	209	61.1	212	62.0	217	63.3	240	72	249	75.6
Total		**9,404**	**674.6**	**9,855**	**721**	**10,309**	**757.6**	**10,647**	**774.6**	**10,864**	**793.8**	**11,153**	**820.8**	**11,352**	**841.2**	**11,515**	**855.1**

*Classification/grouping chnaged from Handymax to Supramax

Source: Drewry Shipping Consultants.

Ocean freight rates may generally trend upward, temporarily, in the coming months. Drewry noted that vessel deliveries are expected to remain strong for the remainder of the year. However, an expected rise in demolition activity, caused by the International Maritime Organization's regulations on ballast water, will eventually slow the rates of dry bulk fleet expansion. High demand for electricity in developing countries continues to boost coal trade. India's expanding industrial output, coupled with sluggish domestic coal production and low international prices, has encouraged India to import more coal in 2019. For instance, India imported 17.3 million tons (about 225 Panamax shipments) more non-coking coal between January and April 2019, compared to the same period in 2018. According to Drewry, increasing demand for solar thermal devices such as absorbers, casings, frames, concentrated solar projects, wind panels and solar cookers is pushing up the demand for aluminum in China. Recent restrictions on aluminum scrap importation in China could push aluminum producers to use more bauxite for producing aluminum products, causing the importation of bauxite to rise. Each of the factors described above could individually or collectively exert upward pressure on bulk ocean freight rates.

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Grain Transportation Indicators

Table 1

Grain Transport Cost Indicators[1]

	Truck	Rail		Barge	Ocean	
For the week ending		Unit Train	Shuttle		Gulf	Pacific
07/24/19	204	285	218	296	221	191
07/17/19	205	281	224	278	208	181

[1]Indicator: Base year 2000 = 100; Weekly updates include truck = diesel ($/gallon); rail = near-month secondary rail market bid and monthly tariff rate with fuel surcharge ($/car); barge = Illinois River barge rate (index = percent of tariff rate); and ocean = routes to Japan ($/metric ton)
n/a = not available
Source: Transportation & Marketing Program/AMS/USDA

Table 2

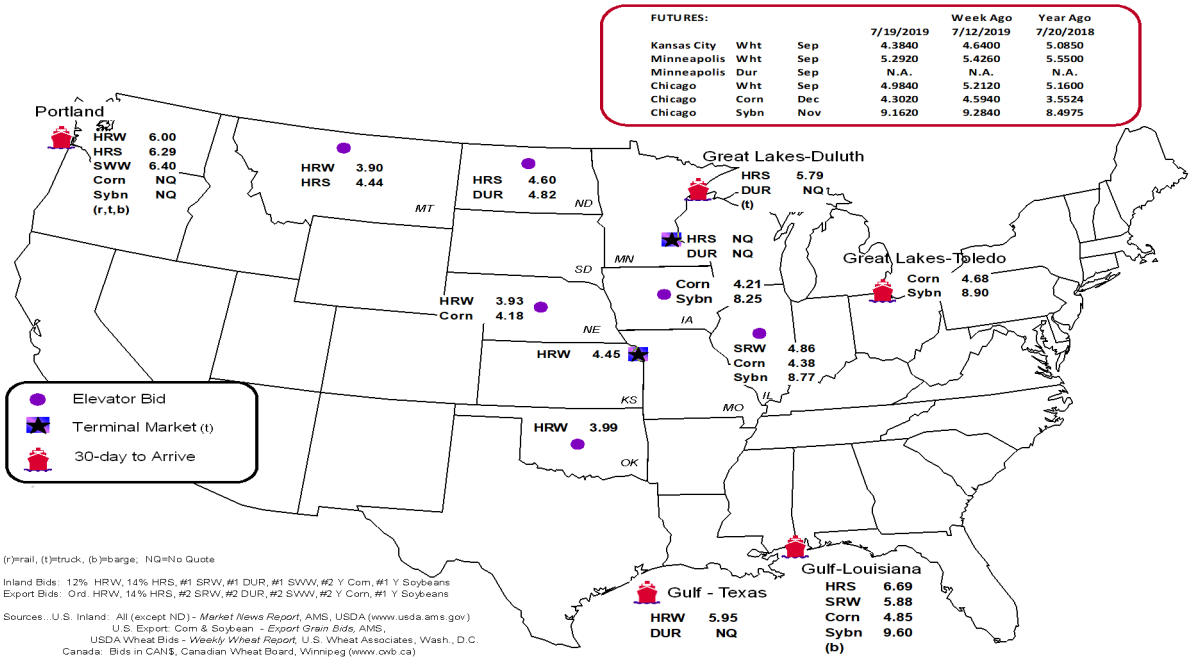
Market Update: U.S. Origins to Export Position Price Spreads ($/bushel)

Commodity	Origin--Destination	7/19/2019	7/12/2019
Corn	IL--Gulf	-0.47	-0.54
Corn	NE--Gulf	-0.67	-0.72
Soybean	IA--Gulf	-1.35	-1.30
HRW	KS--Gulf	-1.50	-1.65
HRS	ND--Portland	-1.69	-1.71

Note: nq = no quote; n/a = not available
Source: Transportation & Marketing Program/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]
7/17/2019[p]	936	816	3,478	448	5,678	7/13/2019	2,293
7/10/2019[r]	1,412	1,215	4,462	449	7,538	7/6/2019	2,569
2019 YTD[r]	28,683	34,239	150,931	10,412	224,265	2019 YTD	65,996
2018 YTD[r]	11,330	32,750	193,660	12,608	250,348	2018 YTD	64,790
2019 YTD as % of 2018 YTD	253	105	78	83	90	% change YTD	102
Last 4 weeks as % of 2018[2]	918	283	61	102	93	Last 4wks % 2018	98
Last 4 weeks as % of 4-year avg.[2]	726	143	87	156	119	Last 4wks % 4 yr	107
Total 2018	22,118	46,532	310,449	21,432	400,531	Total 2018	129,116
Total 2017	28,796	75,543	287,267	21,312	412,918	Total 2017	119,661

[1] Data is incomplete as it is voluntarily provided

[2] Compared with same 4-weeks in 2018 and prior 4-year average.

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

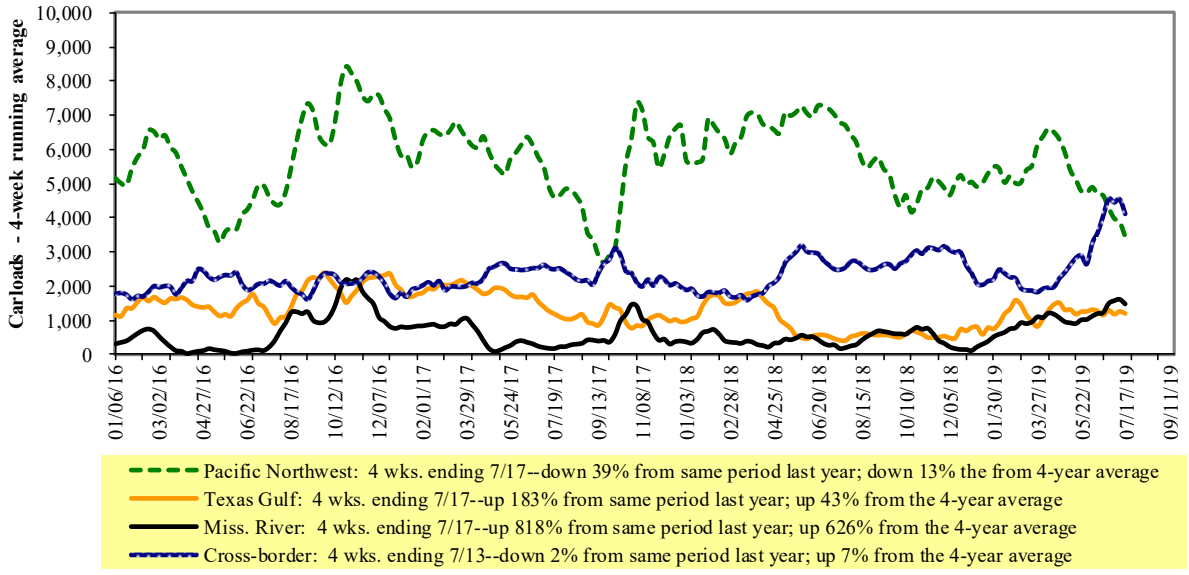
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available

Source: Transportation & Marketing Program/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 Program/AMS/USDA

Table 4

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

For the week ending:	East		West			U.S. total	Canada	
7/13/2019	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,490	3,378	11,730	1,090	6,531	24,219	4,519	4,620
This week last year	2,165	2,810	13,488	1,234	5,103	24,800	3,652	5,057
2019 YTD	53,152	80,019	310,411	31,391	144,041	619,014	122,396	121,461
2018 YTD	54,066	70,995	349,192	27,246	146,686	648,185	104,341	128,988
2019 YTD as % of 2018 YTD	98	113	89	115	98	95	117	94
Last 4 weeks as % of 2018*	90	111	92	106	106	98	117	98
Last 4 weeks as % of 3-yr avg.**	102	105	99	118	100	101	123	98
Total 2018	98,978	133,255	635,458	48,638	267,713	1,184,042	211,793	244,697

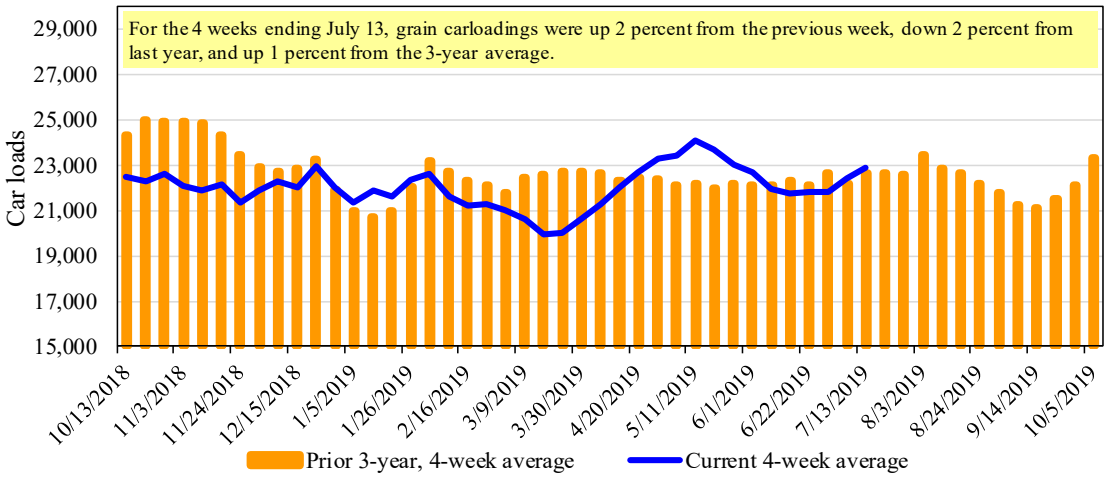
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

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

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:		Delivery period							
7/18/2019		Aug-19	Aug-18	Sep-19	Sep-18	Oct-19	Oct-18	Nov-19	Nov-18
BNSF[3]	COT grain units	15	no offer	0	no offer	no bid	no offer	no bid	no offer
	COT grain single-car[5]	0	no offer	0	no offer	26	no offer	35	no offer
UP[4]	GCAS/Region 1	no offer	no bids	no offer	10	no offer	no offer	n/a	n/a
	GCAS/Region 2	no bid	no offer	no bid	no offer	no offer	no offer	n/a	n/a

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

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

[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.

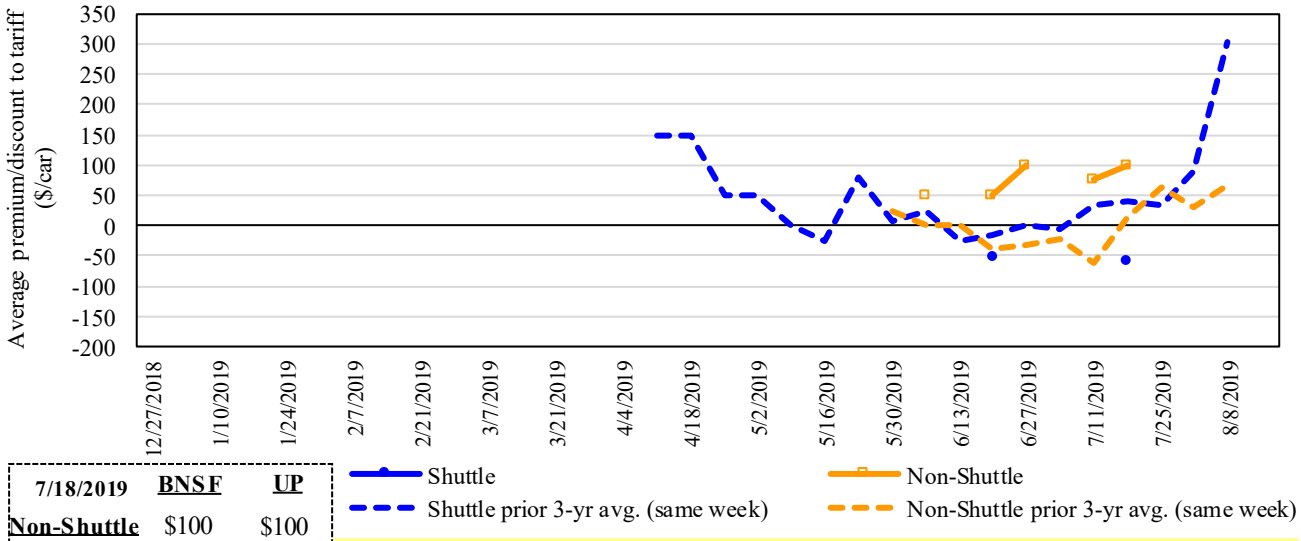
Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

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

Source: Transportation & Marketing Program/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 August 2019, Secondary Market

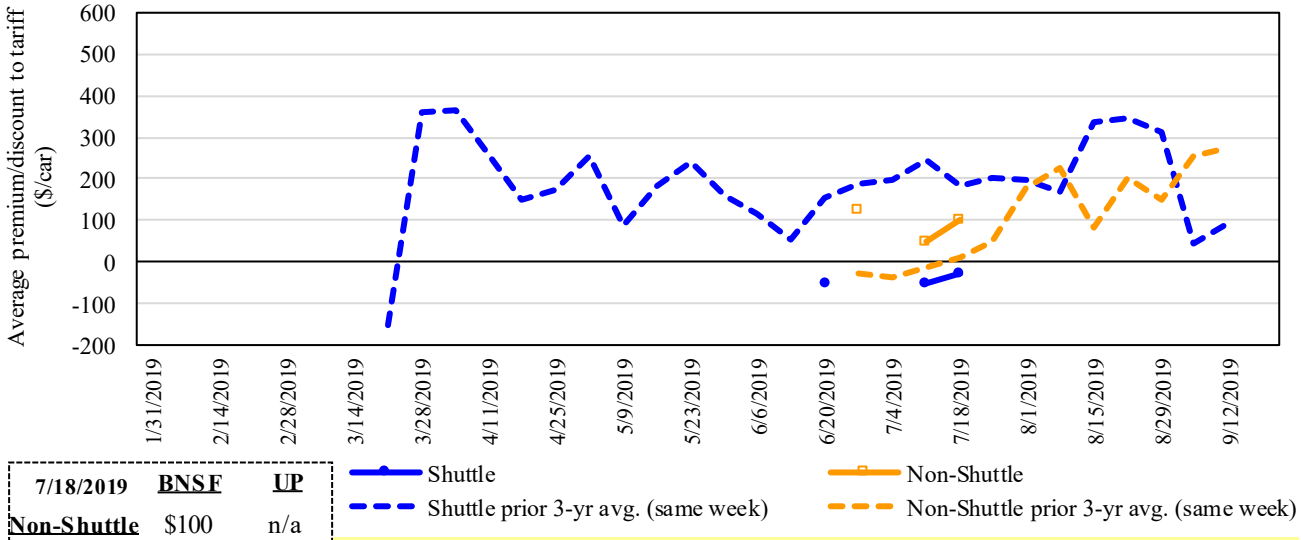


7/18/2019	BNSF	UP
Non-Shuttle	$100	$100
Shuttle	-$56	n/a

Average Non-shuttle bids/offers rose $25 this week, and are at the peak.
There were no Shuttle bids/offers last week. Average Non-Shuttle bids/offers this week are $6 below the peak.

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

Figure 5
Bids/Offers for Railcars to be Delivered in September 2019, Secondary Market



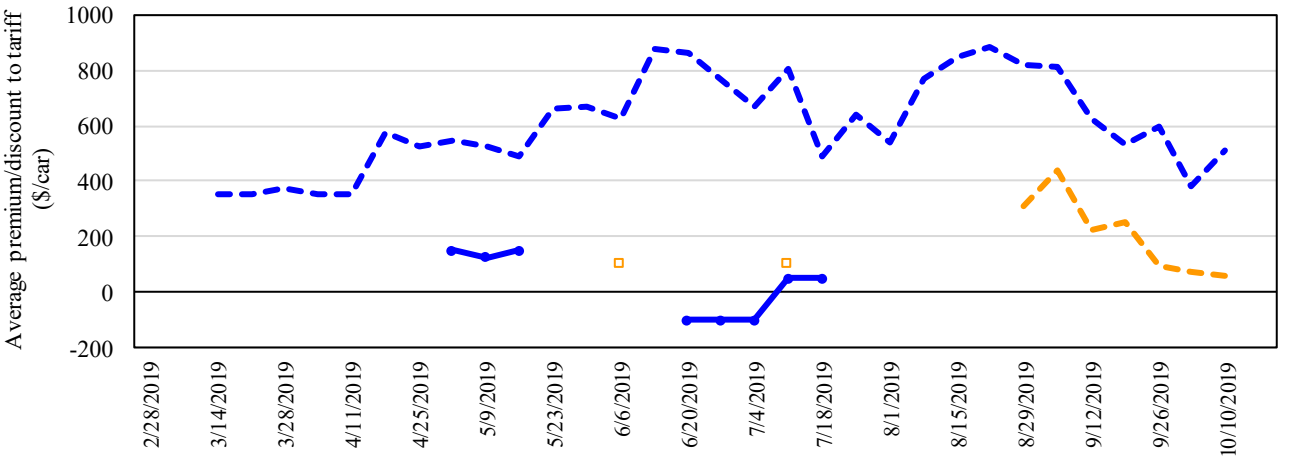
7/18/2019	BNSF	UP
Non-Shuttle	$100	n/a
Shuttle	-$25	n/a

Average Non-shuttle bids/offers rose $50 this week, and are $25 below the peak.
Average Shuttle bids/offers rose $25 this week and are at the peak.

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

Figure 6

Bids/Offers for Railcars to be Delivered in October 2019, Secondary Market



7/18/2019	BNSF	UP
Non-Shuttle	n/a	n/a
Shuttle	$50	n/a

There were no Non-Shuttle bids/offers this week.
Average Shuttle bids/offers are unchanged this week and are $100 below the peak.

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

Table 6

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

	For the week ending: 7/18/2019	Delivery period					
		Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20
Non-shuttle	**BNSF-GF**	**100**	**100**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	50	50	n/a	n/a	n/a	n/a
	Change from same week 2018	n/a	n/a	n/a	n/a	n/a	n/a
	UP-Pool	**100**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	0	n/a	n/a	n/a	n/a	n/a
	Change from same week 2018	n/a	n/a	n/a	n/a	n/a	n/a
Shuttle	**BNSF-GF**	**(56)**	**(25)**	**50**	**n/a**	**n/a**	**n/a**
	Change from last week	n/a	25	0	n/a	n/a	n/a
	Change from same week 2018	(81)	(158)	(350)	n/a	n/a	n/a
	UP-Pool	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
	Change from same week 2018	n/a	n/a	n/a	n/a	n/a	n/a

[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

Data from James B. Joiner Co., Tradewest Brokerage Co.

Source: Transportation and Marketing Program/AMS/USDA

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]

July, 2019	Origin region[3]	Destination region[3]	Tariff rate/car	Fuel surcharge per car	Tariff plus surcharge per: metric ton	Tariff plus surcharge per: bushel[2]	Percent change Y/Y[4]
Unit train							
Wheat	Wichita, KS	St. Louis, MO	$3,983	$111	$40.66	$1.11	0
	Grand Forks, ND	Duluth-Superior, MN	$4,268	$0	$42.38	$1.15	3
	Wichita, KS	Los Angeles, CA	$7,240	$0	$71.90	$1.96	1
	Wichita, KS	New Orleans, LA	$4,525	$196	$46.88	$1.28	-1
	Sioux Falls, SD	Galveston-Houston, TX	$6,976	$0	$69.28	$1.89	1
	Northwest KS	Galveston-Houston, TX	$4,801	$215	$49.81	$1.36	0
	Amarillo, TX	Los Angeles, CA	$5,121	$299	$53.82	$1.46	0
Corn	Champaign-Urbana, IL	New Orleans, LA	$3,800	$221	$39.93	$1.01	-3
	Toledo, OH	Raleigh, NC	$6,581	$0	$65.35	$1.66	4
	Des Moines, IA	Davenport, IA	$2,114	$47	$21.46	$0.55	-6
	Indianapolis, IN	Atlanta, GA	$5,646	$0	$56.07	$1.42	4
	Indianapolis, IN	Knoxville, TN	$4,704	$0	$46.71	$1.19	4
	Des Moines, IA	Little Rock, AR	$3,660	$138	$37.71	$0.96	1
	Des Moines, IA	Los Angeles, CA	$5,520	$401	$58.80	$1.49	3
Soybeans	Minneapolis, MN	New Orleans, LA	$3,631	$216	$38.20	$1.04	-12
	Toledo, OH	Huntsville, AL	$5,459	$0	$54.21	$1.48	3
	Indianapolis, IN	Raleigh, NC	$6,698	$0	$66.51	$1.81	4
	Indianapolis, IN	Huntsville, AL	$4,937	$0	$49.03	$1.33	4
	Champaign-Urbana, IL	New Orleans, LA	$4,545	$221	$47.33	$1.29	-4
Shuttle Train							
Wheat	Great Falls, MT	Portland, OR	$4,078	$0	$40.50	$1.10	3
	Wichita, KS	Galveston-Houston, TX	$4,361	$0	$43.31	$1.18	2
	Chicago, IL	Albany, NY	$5,896	$0	$58.55	$1.59	4
	Grand Forks, ND	Portland, OR	$5,736	$0	$56.96	$1.55	2
	Grand Forks, ND	Galveston-Houston, TX	$6,056	$0	$60.14	$1.64	2
	Northwest KS	Portland, OR	$6,012	$352	$63.20	$1.72	1
Corn	Minneapolis, MN	Portland, OR	$5,180	$0	$51.44	$1.31	4
	Sioux Falls, SD	Tacoma, WA	$5,140	$0	$51.04	$1.30	4
	Champaign-Urbana, IL	New Orleans, LA	$3,720	$221	$39.14	$0.99	-1
	Lincoln, NE	Galveston-Houston, TX	$3,880	$0	$38.53	$0.98	5
	Des Moines, IA	Amarillo, TX	$4,060	$173	$42.04	$1.07	2
	Minneapolis, MN	Tacoma, WA	$5,180	$0	$51.44	$1.31	4
	Council Bluffs, IA	Stockton, CA	$5,000	$0	$49.65	$1.26	4
Soybeans	Sioux Falls, SD	Tacoma, WA	$5,750	$0	$57.10	$1.55	3
	Minneapolis, MN	Portland, OR	$5,800	$0	$57.60	$1.57	3
	Fargo, ND	Tacoma, WA	$5,650	$0	$56.11	$1.53	3
	Council Bluffs, IA	New Orleans, LA	$4,775	$255	$49.95	$1.36	0
	Toledo, OH	Huntsville, AL	$4,634	$0	$46.02	$1.25	6
	Grand Island, NE	Portland, OR	$5,710	$360	$60.28	$1.64	0

[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: July, 2019							
Commodity	Origin state	Destination region	Tariff rate/car[1]	Fuel surcharge per car[2]	Tariff plus surcharge per: metric ton[3]	Tariff plus surcharge per: bushel[3]	Percent change[4] Y/Y
Wheat	MT	Chihuahua, CI	$7,284	$0	$74.43	$2.02	-2
	OK	Cuautitlan, EM	$6,775	$153	$70.79	$1.92	0
	KS	Guadalajara, JA	$7,534	$614	$83.25	$2.26	6
	TX	Salinas Victoria, NL	$4,329	$93	$45.18	$1.23	1
Corn	IA	Guadalajara, JA	$8,828	$528	$95.60	$2.43	8
	SD	Celaya, GJ	$8,140	$0	$83.17	$2.11	6
	NE	Queretaro, QA	$8,207	$317	$87.09	$2.21	2
	SD	Salinas Victoria, NL	$6,905	$0	$70.55	$1.79	2
	MO	Tlalnepantla, EM	$7,573	$309	$80.54	$2.04	2
	SD	Torreon, CU	$7,690	$0	$78.57	$1.99	5
Soybeans	MO	Bojay (Tula), HG	$8,497	$499	$91.91	$2.50	7
	NE	Guadalajara, JA	$8,982	$524	$97.12	$2.64	5
	IA	El Castillo, JA	$9,110	$0	$93.08	$2.53	2
	KS	Torreon, CU	$7,814	$366	$83.58	$2.27	6
Sorghum	NE	Celaya, GJ	$7,925	$472	$85.79	$2.18	10
	KS	Queretaro, QA	$8,000	$191	$83.70	$2.12	2
	NE	Salinas Victoria, NL	$6,633	$154	$69.34	$1.76	3
	NE	Torreon, CU	$7,390	$339	$78.97	$2.00	10

[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

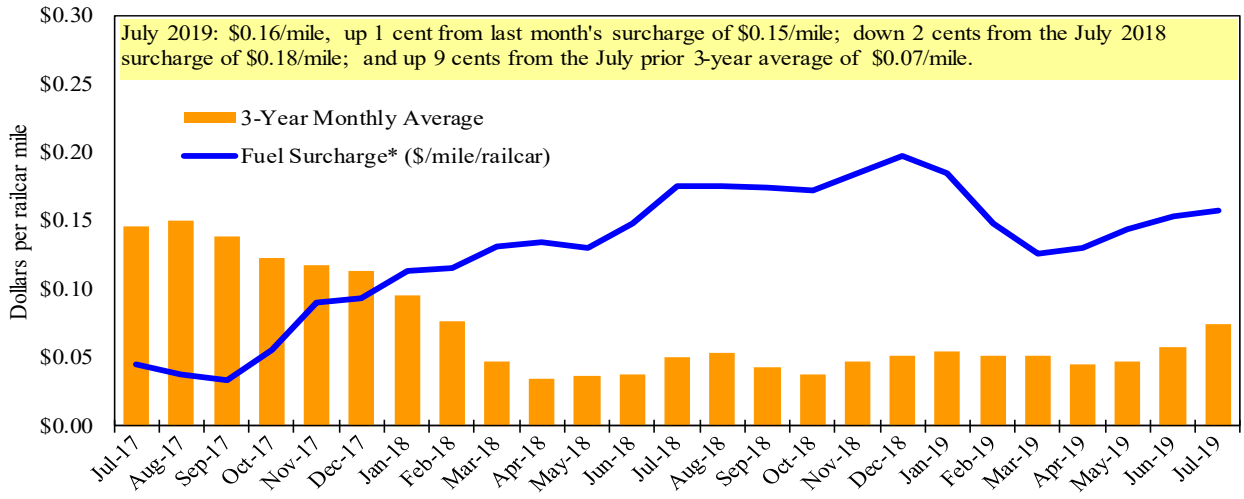
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

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

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

Figure 7

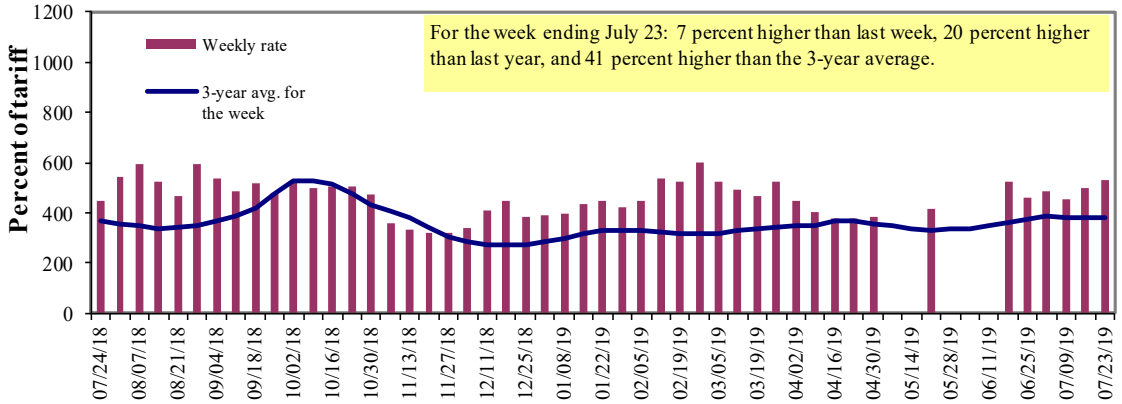
Railroad Fuel Surcharges, North American Weighted Average[1]



[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 Program/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]	7/23/2019	493	533	533	442	265	265	325
	7/16/2019	500	500	500	354	273	273	286
$/ton	7/23/2019	30.52	28.36	24.73	17.64	12.43	10.71	10.21
	7/16/2019	30.95	26.60	23.20	14.12	12.80	11.03	8.98
Current week % change from the same week:								
	Last year	0	18	20	44	-32	-32	15
	3-year avg. [2]	13	38	41	62	-11	-11	37
Rate[1]	August	442	415	438	323	308	308	300
	October	450	442	433	358	415	415	330

[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-week moving average; ton = 2,000 pounds; "-" n/a due to closure
* - Current weekly rate is a nominal value, reflecting the anticipation of improved navigation conditions
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.

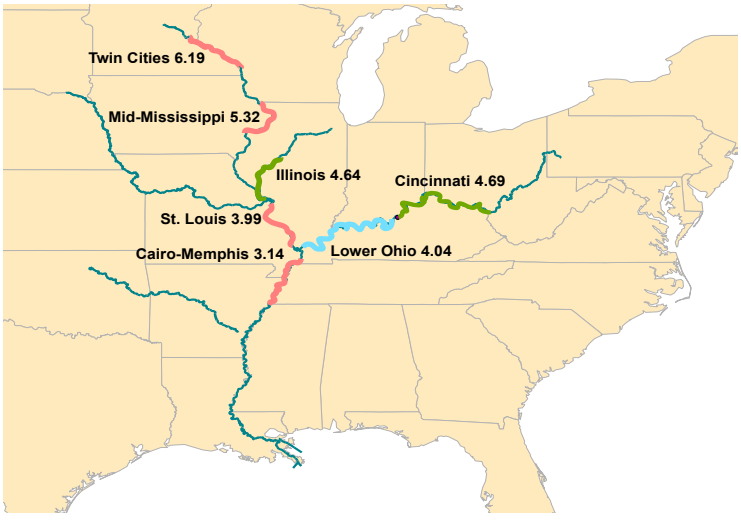
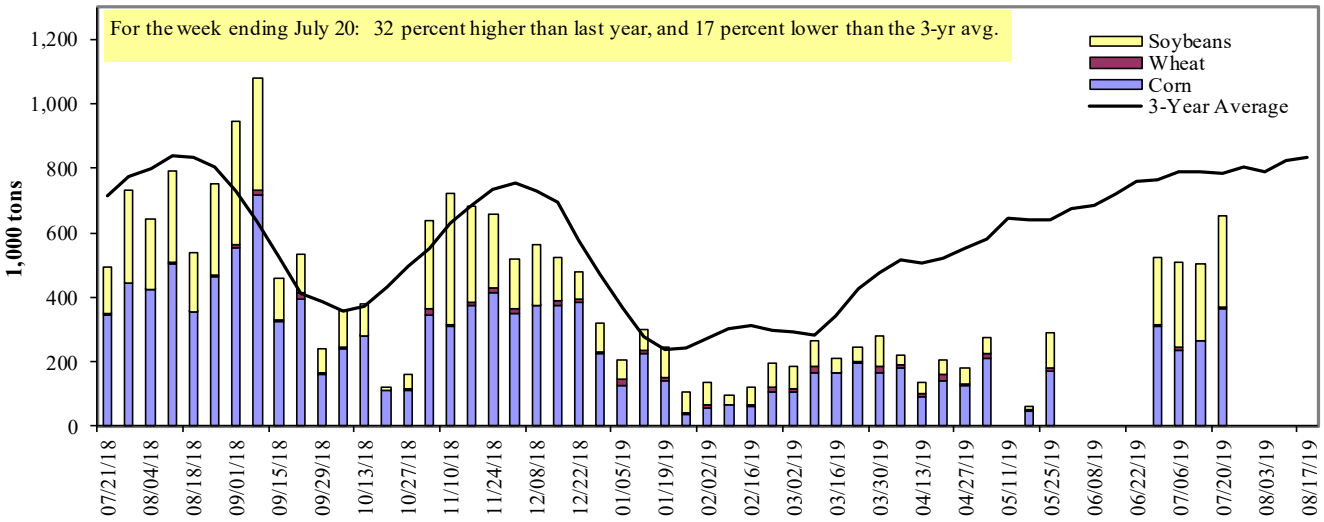


Figure 10

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 07/20/2019	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	136	3	101	0	240
Winfield, MO (L25)	267	9	173	0	449
Alton, IL (L26)	382	12	278	0	672
Granite City, IL (L27)	362	9	279	0	651
Illinois River (LAGRANGE)	85	3	99	19	206
Ohio River (OLMSTED)	23	30	58	0	111
Arkansas River (L1)	0	3	8	0	11
Weekly total - 2019	385	42	346	0	773
Weekly total - 2018	392	59	202	0	652
2019 YTD[1]	7,000	1,055	5,601	76	13,731
2018 YTD[1]	13,426	1,008	6,442	66	20,942
2019 as % of 2018 YTD	52	105	87	114	66
Last 4 weeks as % of 2018[2]	63	61	140	300	85
Total 2018	23,349	1,674	12,819	133	37,975

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

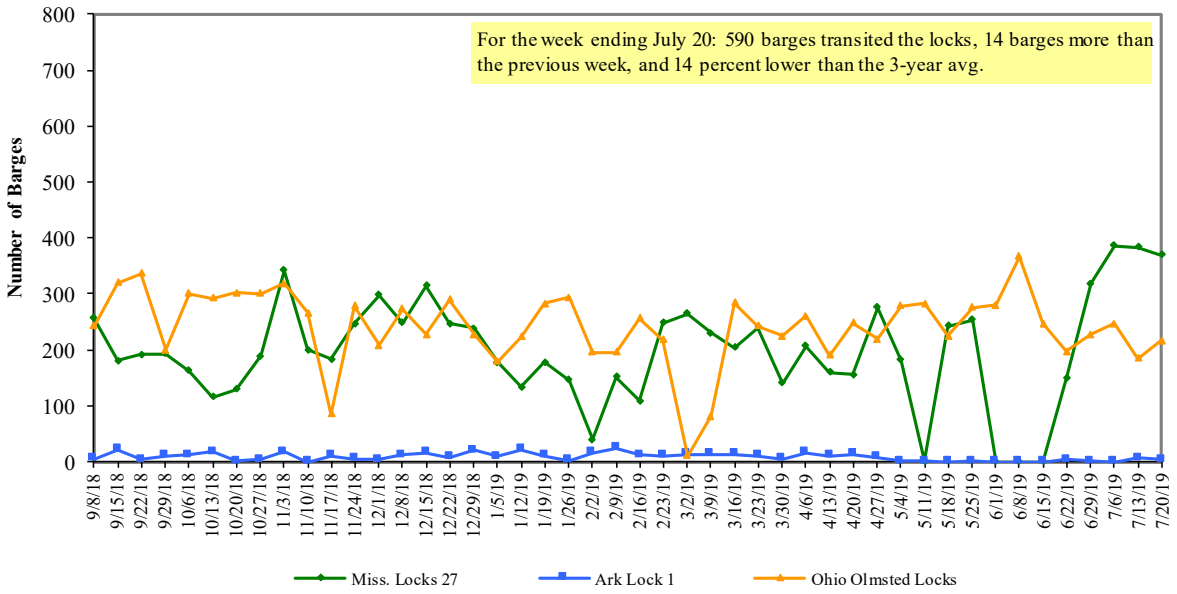
[2] As a percent of same period in 2018.

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

Source: U.S. Army Corps of Engineers

Figure 11

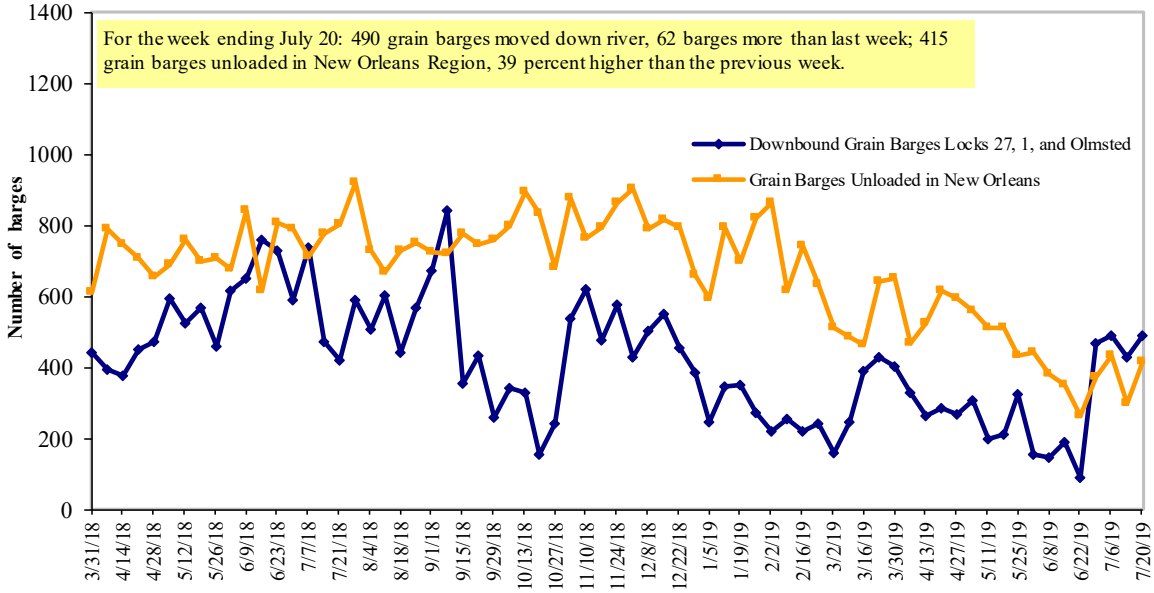
Upbound Empty Barges Transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



Source: U.S. Army Corps of Engineers

Figure 12

Grain Barges for Export in New Orleans Region



Source: U.S. Army Corps of Engineers and AMS FGIS

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 7/22/2019 (US $/gallon)

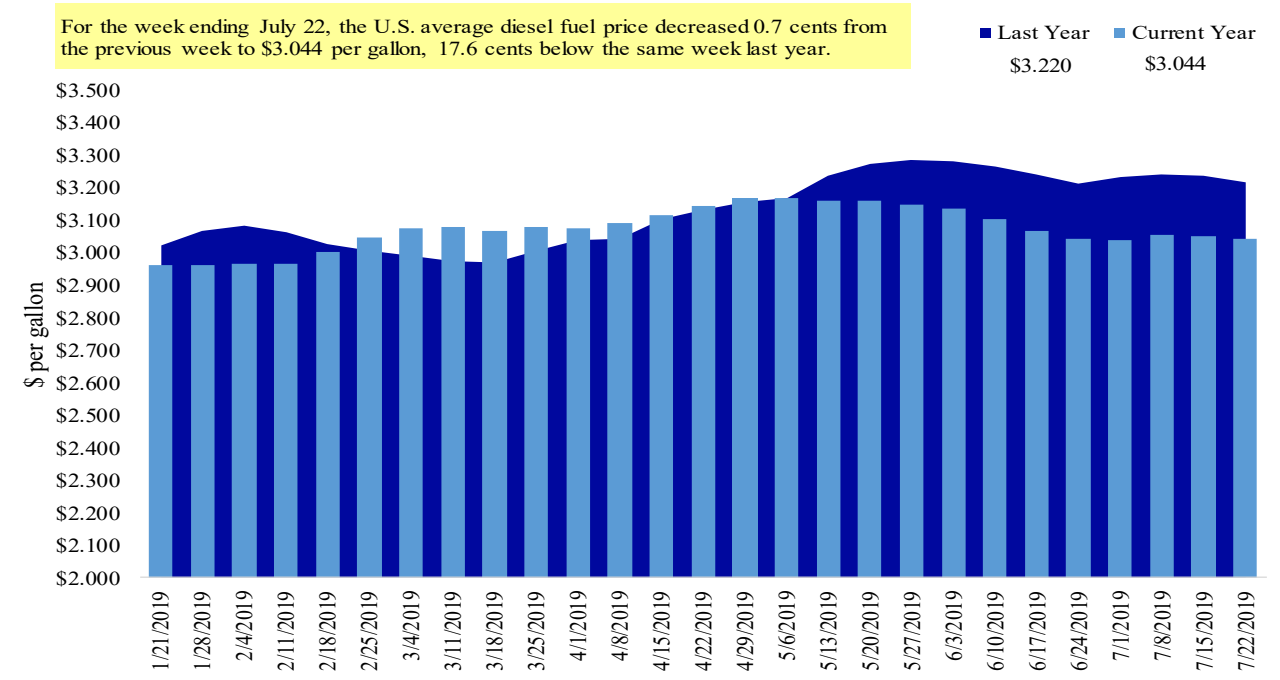
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.072	-0.008	-0.145
	New England	3.122	-0.009	-0.147
	Central Atlantic	3.259	-0.013	-0.130
	Lower Atlantic	2.937	-0.004	-0.150
II	Midwest	2.948	-0.008	-0.194
III	Gulf Coast	2.804	-0.001	-0.189
IV	Rocky Mountain	2.978	0.003	-0.391
V	West Coast	3.611	-0.013	-0.107
	West Coast less California	3.198	-0.011	-0.238
	California	3.939	-0.013	-0.004
Total	U.S.	3.044	-0.007	-0.176

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

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]									
7/11/2019	1,643	837	1,297	994	173	4,945	4,913	9,279	19,137
This week year ago	989	506	1,445	1,124	163	4,227	10,881	6,812	21,919
Cumulative exports-marketing year[2]									
2018/19 YTD	1,509	277	661	404	59	2,911	44,708	39,381	87,000
2017/18 YTD	574	321	653	646	9	2,201	47,856	50,833	100,890
YTD 2018/19 as % of 2017/18	263	86	101	63	691	132	93	77	86
Last 4 wks as % of same period 2017/18	184	170	93	90	104	123	52	149	96
2017/18 Total	9,150	2,343	5,689	4,854	384	22,419	57,209	56,214	135,842
2016/17 Total	11,096	2,285	7,923	4,254	484	26,042	41,864	51,156	119,062

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

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

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

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

Table 13

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

For the week ending 7/11/2019	Total Commitments[2]			% change current MY from last MY	Exports[3] 3-year avg 2015-2017
	2019/20 Next MY	2018/19 Current MY	2017/18 Last MY		
		- 1,000 mt -			
Mexico	1,967	15,277	14,846	3	13,691
Japan	480	12,530	11,270	11	11,247
Korea	0	3,697	5,554	(33)	4,754
Colombia	33	4,637	4,524	3	4,678
Peru	0	1,992	3,111	(36)	2,975
Top 5 Importers	**2,480**	**38,133**	**39,304**	**(3)**	**37,344**
Total US corn export sales	**3,360**	**49,621**	**58,736**	**(16)**	**53,184**
% of Projected	6%	93%	95%		
Change from prior week[2]	**133**	**200**	**641**		
Top 5 importers' share of U.S. corn export sales	74%	77%	67%		70%
USDA forecast, July 2019	**54,707**	**53,435**	**62,036**	**(14)**	
Corn Use for Ethanol USDA forecast, July 2019	**142,367**	**138,430**	**142,367**	**(3)**	

(n) indicates negative number.

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

[2]Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query--http://www.fas.usda.gov/esrquery/. Total commitments change (net sales) from prior week could include revisions from previous week's outstanding sales or accumulated sales.

[3]FAS Marketing Year Ranking Reports - http://apps.fas.usda.gov/export-sales/myrkaug.htm; 3-yr average

Table 14

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

For the week ending 7/11/2019	Total Commitments[2]			% change current MY from last MY	Exports[3] 3-yr avg. 2015-2017
	2019/20 Next MY	2018/19 Current MY	2017/18 Last MY		
		- 1,000 mt -			- 1,000 mt -
China	126	14,442	28,123	(49)	31,228
Mexico	619	4,875	4,325	13	3,716
Indonesia	14	2,327	2,523	(8)	2,250
Japan	125	2,500	2,288	9	2,145
Netherlands	0	1,996	2,118	(6)	2,209
Top 5 importers	**884**	**26,140**	**39,377**	**(34)**	**41,549**
Total US soybean export sales	**2,804**	**48,660**	**57,645**	**(16)**	**55,113**
% of Projected	5%	105%	99%		
Change from prior week[2]	**198**	**128**	**194**		
Top 5 importers' share of U.S. soybean export sales	32%	54%	68%		**75%**
USDA forecast, July 2019	**51,090**	**46,322**	**58,147**	**80**	

(n) indicates negative number.

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

[2] Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query--http://www.fas.usda.gov/esrquery/. The total commitments change (net sales) from prior week could include reivisions from previous week's outstanding sales and/or accumulated sales

[3] FAS Marketing Year Final Reports - www.fas.usda.gov/export-sales/myfi_rpt.htm. (Carryover plus Accumulated Exports)

Table 15

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

For the week ending 7/11/2019	Total Commitments[2]		% change current MY from last MY	Exports[3] 3-yr avg 2015-2017
	2019/20 Current MY	2018/19 Last MY		
	- 1,000 mt -			- 1,000 mt -
Mexico	1,132	600	89	2,781
Japan	636	841	(24)	2,649
Philippines	1,033	938	10	2,441
Korea	388	587	(34)	1,257
Nigeria	556	220	153	1,254
Indonesia	270	131	106	1,076
Taiwan	365	281	30	1,066
China	0	0	n/a	944
Colombia	30	282	(89)	714
Thailand	255	382	(33)	618
Top 10 importers	**4,663**	**4,262**	9	**14,800**
Total US wheat export sales	**7,856**	**6,429**	**22**	**22,869**
% of Projected	30%	25%		
Change from prior week[2]	**347**	**300**		
Top 10 importers' share of U.S. wheat export sales	59%	66%		65%
USDA forecast, July 2019	**25,886**	**25,504**	**1**	

(n) indicates negative number.

[1] Based on FAS Marketing Year Ranking Reports for 2017/18 - www.fas.usda.gov; Marketing year = Jun 1 - May 31.

[2] Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query--http://www.fas.usda.gov/esrquery/. Total commitments change (net sales) from prior week could include revisions from the previous week's outstanding and/or accumulated sales

[3] FAS Marketing Year Final Reports - www.fas.usda.gov/export-sales/myfi_rpt.htm.

Table 16

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

Port Regions	For the Week Ending 07/18/19	Previous Week*	Current Week as % of Previous	2019 YTD*	2018 YTD*	2019 YTD as % of 2018 YTD	Last 4-weeks as % of: Last Year	Last 4-weeks as % of: Prior 3-yr. avg.	2018 Total*
Pacific Northwest									
Wheat	162	121	134	7,474	6,866	109	86	88	13,315
Corn	110	140	78	6,744	12,765	53	29	36	20,024
Soybeans	141	279	50	5,375	5,519	97	129	219	7,719
Total	**412**	**540**	**76**	**19,593**	**25,151**	**78**	**60**	**74**	**41,058**
Mississippi Gulf									
Wheat	47	65	73	2,844	2,359	121	103	93	3,896
Corn	195	342	57	13,440	19,768	68	32	34	33,735
Soybeans	191	502	38	13,008	12,909	101	91	115	28,124
Total	**433**	**909**	**48**	**29,293**	**35,035**	**84**	**58**	**64**	**65,755**
Texas Gulf									
Wheat	198	113	175	4,241	1,988	213	781	185	3,198
Corn	0	0	n/a	393	456	86	39	37	730
Soybeans	0	0	n/a	0	67	0	n/a	n/a	69
Total	**198**	**113**	**175**	**4,634**	**2,511**	**185**	**446**	**160**	**3,997**
Interior									
Wheat	27	59	45	992	847	117	178	132	1,614
Corn	126	196	64	4,201	4,856	87	90	96	8,650
Soybeans	165	94	175	3,720	3,732	100	96	133	6,729
Total	**318**	**350**	**91**	**8,914**	**9,436**	**94**	**99**	**113**	**16,993**
Great Lakes									
Wheat	22	9	248	507	322	157	112	75	894
Corn	0	0	n/a	0	298	0	0	0	404
Soybeans	31	22	146	294	248	118	238	280	1,192
Total	**53**	**30**	**175**	**801**	**869**	**92**	**98**	**101**	**2,491**
Atlantic									
Wheat	0	0	n/a	32	67	48	0	0	69
Corn	0	0	n/a	92	67	136	n/a	n/a	138
Soybeans	60	4	n/a	780	1,274	61	67	145	2,047
Total	**60**	**4**	**n/a**	**904**	**1,408**	**64**	**69**	**148**	**2,253**
U.S. total from ports*									
Wheat	456	367	124	16,091	12,449	129	140	112	22,986
Corn	430	678	63	24,871	38,211	65	38	43	63,682
Soybeans	588	900	65	23,178	23,749	98	99	137	45,879
Total	**1,475**	**1,945**	**76**	**64,140**	**74,409**	**86**	**72**	**80**	**132,547**

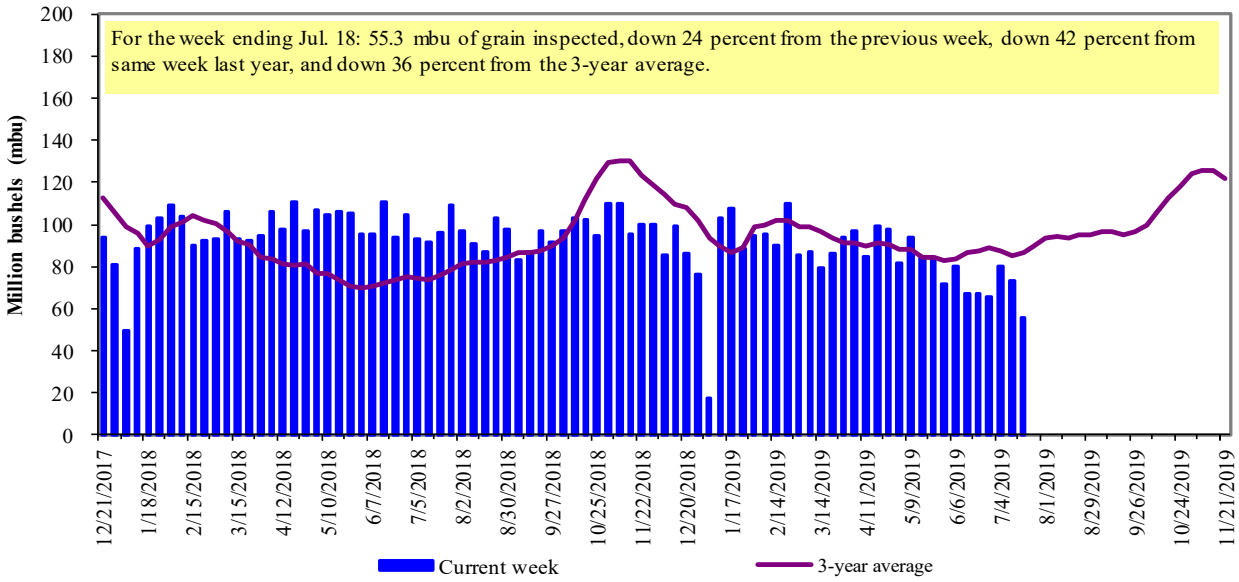
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

Source: USDA/Federal Grain Inspection Service (www.gipsa.usda.gov/fgis); YTD= year-to-date; n/a = not applicable

The United States exports approximately one-quarter of the grain it produces. On average, this includes nearly 45 percent of U.S.-grown wheat, 50 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 53 percent of the U.S. export grain shipments departed through the U.S. Gulf region in 2018.

Figure 14

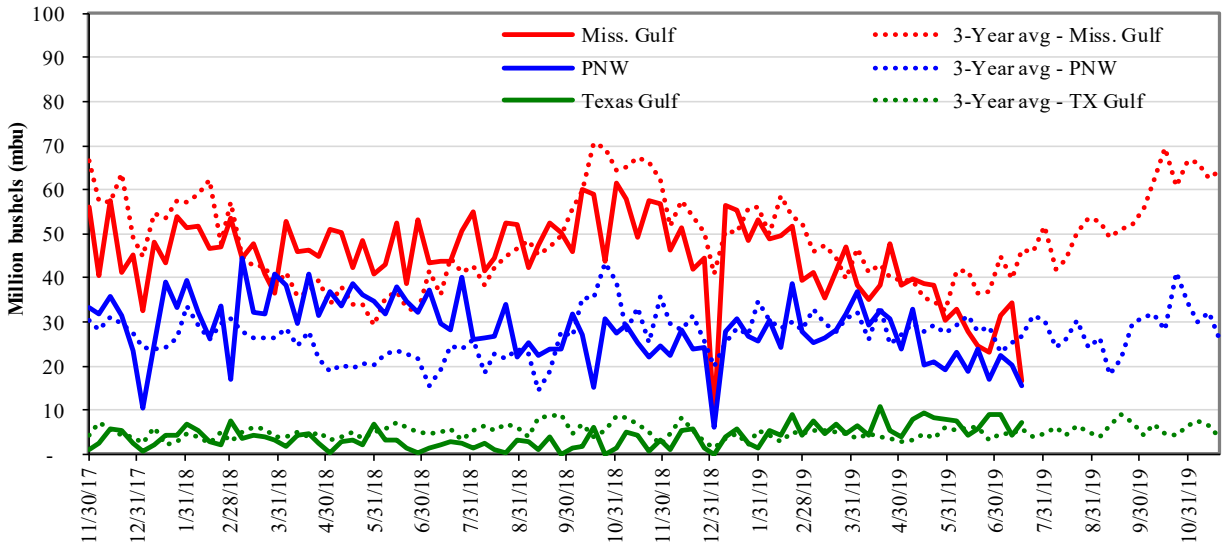
U.S. grain inspected for export (wheat, corn, and soybeans)



Source: USDA/Federal Grain Inspection Service (www.gipsa.usda.gov/fgis)
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 07/18/19 inspections (mbu):	
Mississippi Gulf:	16.4
PNW:	15.4
Texas Gulf:	7.3

Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last Week:	down 52	up 75	down 38	down 24
Last Year (same week):	down 62	up 143	down 49	down 45
3-yr avg. (4-wk. mov. Avg):	down 61	up 56	down 49	down 40

Source: USDA/Federal Grain Inspection Service (www.gipsa.usda.gov/fgis)

Ocean Transportation

Table 17

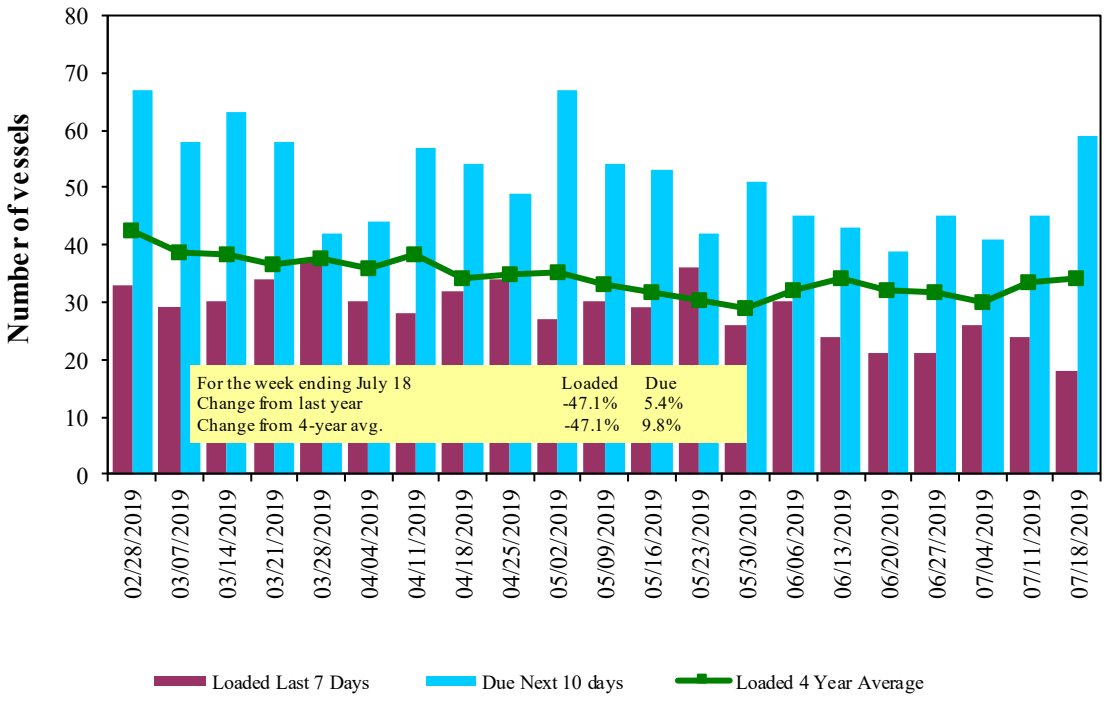
Weekly Port Region Grain Ocean Vessel Activity (number of vessels)

	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
7/18/2019	44	18	59	13
7/11/2019	48	24	45	11
2018 range	(23..88)	(24..41)	(38..67)	(4..30)
2018 avg.	40	34	54	17

Source: Transportation & Marketing Programs/AMS/USDA

Figure 16

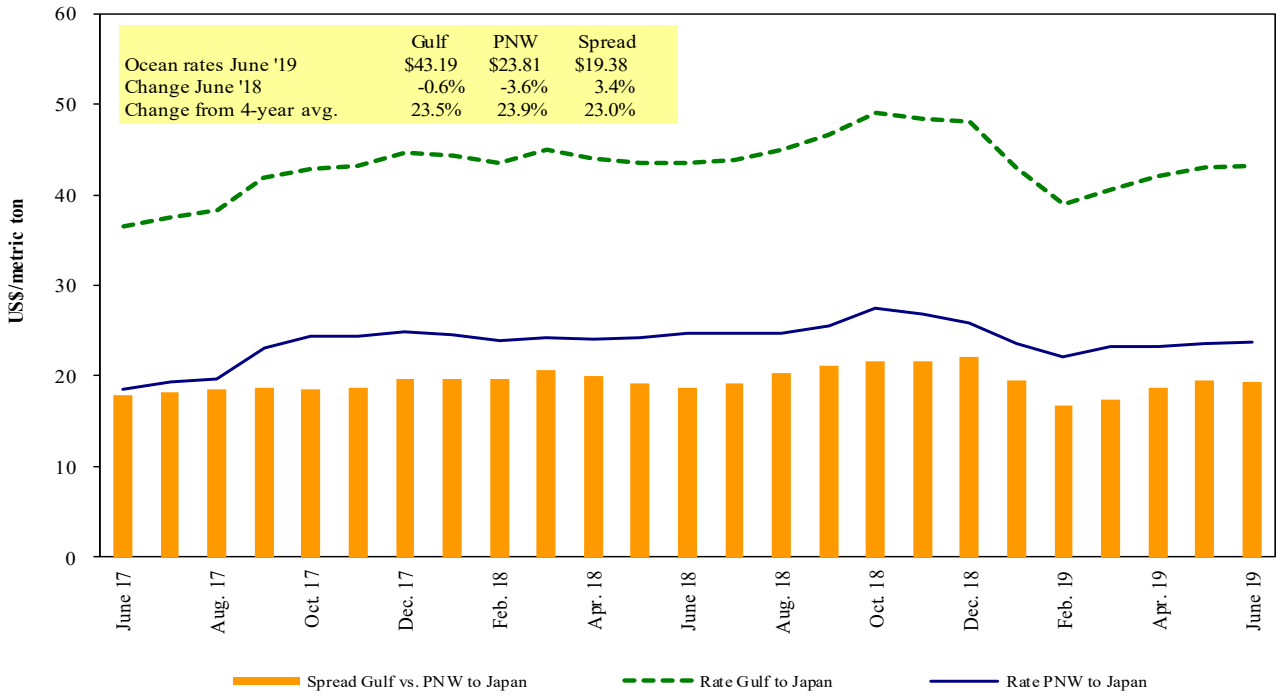
U.S. Gulf Vessel Loading Activity



Source:Transportation & Marketing Program/AMS/USDA
[1]U.S. Gulfincludes 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 07/20/2019

Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US$/metric ton)
U.S. Gulf	China	Heavy Grain	Jun 1/30	63,000	42.00
U.S. Gulf	China	Heavy Grain	Mar 15/Apr 15	63,000	40.00
U.S. Gulf	Durban	Sorghum	Jul 19/29	11,000	145.22*
PNW	China	Heavy Grain	Mar 2/18	60,000	27.50
PNW	Yemen	Wheat	Jul 16/26	29,200	71.00*
Brazil	China	Heavy Grain	Jun 10/20	65,000	33.00
Brazil	China	Heavy Grain	Apr 20/May 5	63,000	33.00
Brazil	China	Heavy Grain	Apr 15/30	63,000	32.50
Brazil	China	Heavy Grain	Mar 3/11	63,000	27.50
River Plate	China	Heavy Grain	Apr 21/30	65,000	37.85

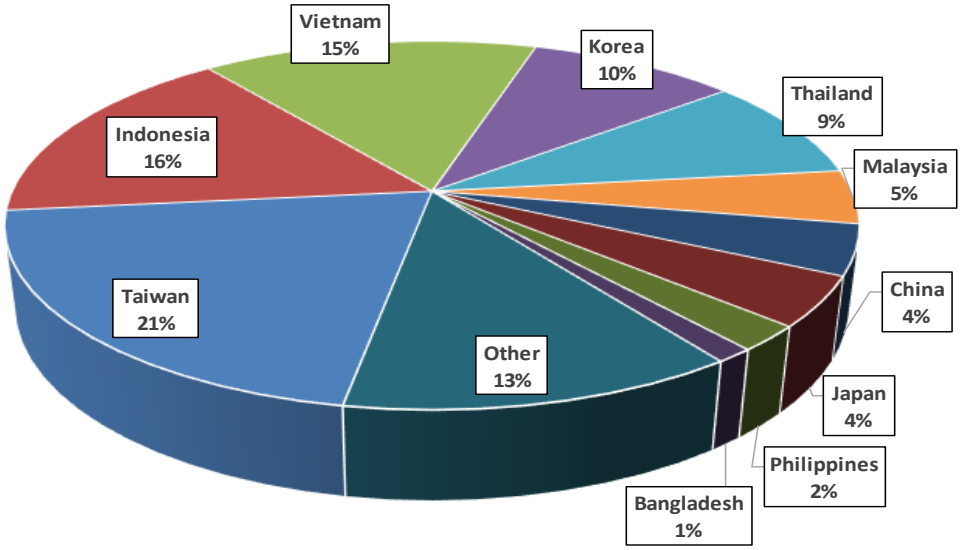
Rates shown are per metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicated; op = option

*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.

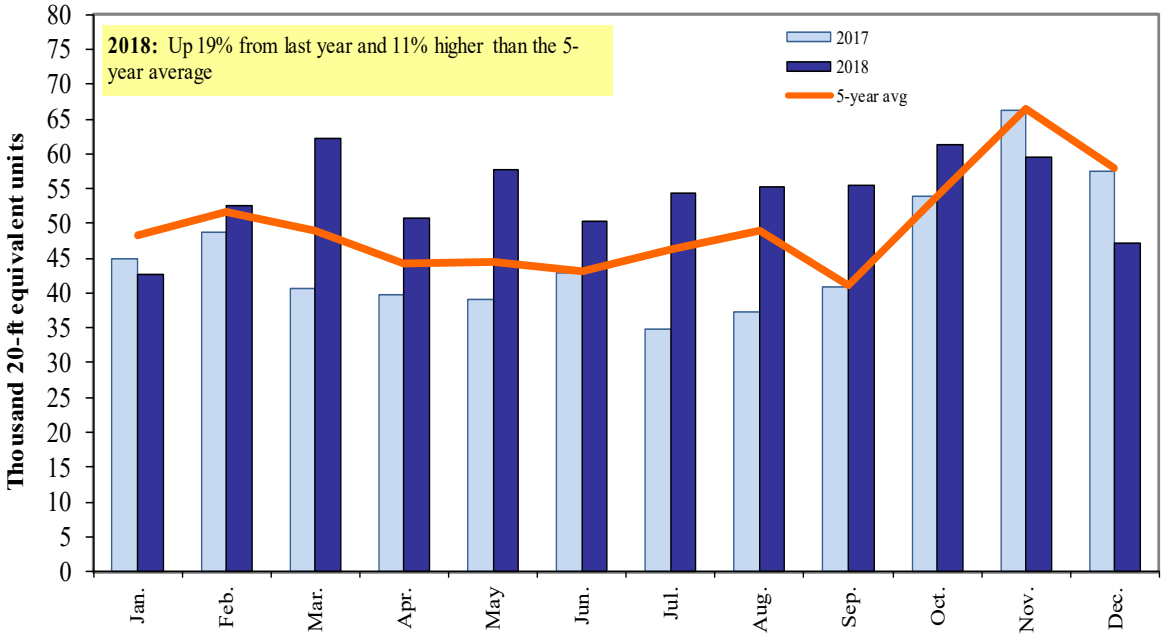
Figure 18
Top 10 Destination Markets for U.S. Containerized Grain Exports, 2018



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: 1001, 100190, 1002, 1003 100300, 1004, 100400, 1005, 100590, 1007, 100700, 1102, 110100, 230310, 110220, 110290, 1201, 120100, 230210, 230990, 230330, and 120810.

Figure 19
Monthly Shipments of Containerized Grain to Asia



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

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

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