USDA United States Department of Agriculture

Grain Transportation Report

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

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June 20, 2019

Contents

The next release is June 27, 2019

WEEKLY HIGHLIGHTS

Illinois Trucking Association Publishes Rail Turn Times

Truckers servicing rail hubs in the Chicago region have begun publishing monthly rail turn times to highlight the impact of terminal congestion on shippers. According to a recent Journal of Commerce article, Chicago has experienced two consecutive winters of poor performance and associated container logistics problems in the Midwest hub. Measuring the data and comparing the results will allow both shippers and truckers to evaluate railroads' efficiency. Shippers will be able to make routing decisions based on the information and pressure underperforming railroads to address inefficiencies. A similar project, by the Harbor Trucking Association (HTA), monitors turn times in Southern California and allows HTA to work with terminal operators to improve their numbers. Both groups are using GeoStamp, which utilizes geofencing technology to measure all aspects of a turn. The majority of U.S. containerized grain exports transit the Chicago region.

Grain Inspections Down from Previous Week

For the week ending June 13, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions reached 1.75 million metric tons (mmt). This amount indicates a 17 percent decrease from the previous week, a 41 percent drop from last year, and a 24 percent decrease from the 3-year average. Weekly inspections dropped 21 percent for wheat; 23 percent for corn; and 8 percent for soybeans. During the last four weeks, grain inspections were 25 percent below last year and 12 percent below the 3-year average. Inspections of grain decreased 17 percent from the previous week in the Pacific Northwest (PNW), and decreased 15 percent in the Mississippi Gulf.

Average Diesel Fuel Prices Show Downward Trend

During the week ending June 17, the U.S. average **diesel fuel price** decreased 3.5 cents from the previous week to $3.07 per gallon. This price is 17.4 cents less than the same week last year. Since the beginning of May, diesel prices have fallen 9.9 cents. Crude oil futures prices have followed a similar pattern, dropping 12 percent since the beginning of May. For more information visit, www.eia.gov.

Snapshots by Sector

Export Sales

For the week ending June 6, **unshipped balances** of wheat, corn, and soybeans totaled 24.2 mmt. This indicates a 17 percent decrease in outstanding sales, compared to the same time last year. Net weekly **wheat export sales** reached .048 mmt, up significantly from the from the previous week. Net **corn export sales** rebounded from the previous week as well, reaching .169 mmt. Net **soybean export sales** totaled .256 mmt, down 50 percent from the past week.

Rail

U.S. Class I railroads originated 21,213 **grain carloads** for the week ending June 8. This is a 2 percent increase from the previous week, 9 percent lower than last year, and 4 percent below the 3-year average.

Average June shuttle **secondary railcar** bids/offers (per car) were $225 above tariff for the week ending June 13. This is $114 less than last week and $138 lower than last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending June 15, **barge grain movements** totaled 329,386 tons. This is a 29 percent increase from the previous week and a 72 percent decrease from the same period last year.

For the week ending June 15, 188 grain barges **moved down river**. This is 43 more barges than the previous week. There were 349 grain barges **unloaded in New Orleans**, 9 percent fewer than the previous week.

Ocean

For the week ending June 13, 24 **ocean-going grain vessels** were loaded in the Gulf. This is 20 percent fewer than the same period last year. Forty-three vessels are expected to be loaded within the next 10 days. This is 9 percent fewer than the same period last year.

As of June 13, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $43.25. This is 1 percent less than the previous week. The rate from the Pacific Northwest to Japan was $23.70 per mt, a 1 percent decrease from the previous week.

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Feature Article/Calendar

Containerized Grain Update

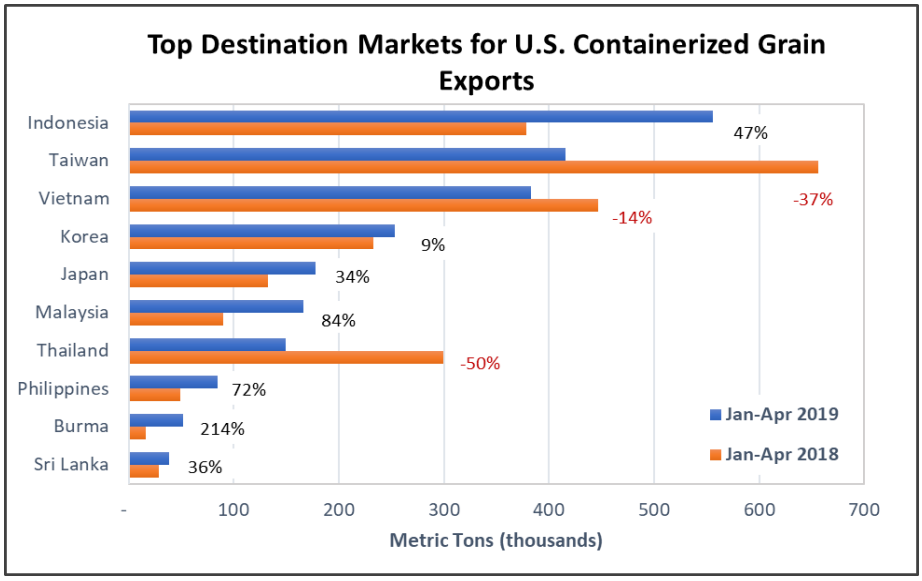
Containerized grain exports between January and April felt the pressure of a relatively slow grain market, with movements down 10 percent compared with the same period last year (see table below). Distillers' dried grains with solubles (DDGS) experienced the biggest individual decrease, down 16 percent, followed by corn and animal feed. Soybean exports claimed the top containerized grain export, with 964 thousand metric tons, a 4 percent decrease year over year.

U.S. Containerized Grain Exports, Jan-April 2018 and 2019

HS Codes	HS Descriptions	2018 MT	2019 MT	2018 TEU	2019 TEU	Percent Chng (MT)
120100	Soybeans	1,004,355	964,129	76,536	73,554	-4%
230330	Distillers' Dried Grains with Solubles	932,893	783,850	72,409	59,797	-16%
230990	Animal feed	309,799	279,521	27,761	25,402	-10%
100590	Corn	227,993	197,032	17,339	16,525	-14%
120810	Soybean flours and meals	137,483	184,543	10,472	14,563	34%
	Other	246,018	176,255	19,344	14,301	-28%
	Total	**2,858,541**	**2,585,331**	**223,861**	**204,142**	**-10%**

Source: PIERS/IHS Markit

Overall, destination markets for containerized grain shifted during the first 4 months of 2019, compared with the same period in 2018. Of the top 10 destination markets, U.S. containerized grain exports to Taiwan, Vietnam, and Thailand decreased, while other markets such as Indonesia, Japan, and Malaysia (see chart) increased significantly. Exports of DDGS decreased in key markets such as China, Vietnam, Taiwan, and Thailand, but increased in Indonesia and Japan. For containerized soybean exports, decreases in shipments to Taiwan and Thailand were offset by increases to Indonesia, Malaysia, Vietnam, Japan, and Korea.



2019 Outlook for Container Market Uncertain

Shippers at the recent Agriculture Transportation Coalition (AgTC) Annual Meeting expressed what most in the international trade industry describe as a year of uncertainty. There are several issues with unknown variables overshadowing international trade. Walter Kemmsies, Economist at JLL Ports, Airports, Global Infrastructure, described the current circumstances with a military term, "VUCA," which stands for "volatility, uncertainty, complexity, and ambiguity." A few of the key challenges include: the new low-sulfur fuel mandate, continued trade negotiations with China, and the availability of chassis when and where they are needed for exports. Each of these circumstances, discussed further below, is either currently affecting the overall supply chain or is likely to impact it in the next few months.

IMO 2020: Shippers are concerned the International Maritime Organization's (IMO 2020) impending low-sulfur fuel mandate will not only increase freight rates, but will impact global vessel capacity and ship schedules. To comply with the low-sulfur fuel mandate, all ocean vessels will need to be cleaned to run on the new low-sulfur fuel or be retrofitted with exhaust scrubbers.[1] Experts at the AgTC Annual Meeting reported that anywhere from 2 to 6 percent of the global vessel fleet is expected to be fitted for emission scrubbers. This will leave most of the global fleet to convert vessels to use low-sulfur diesel. The biggest unknown is the price of the new fuel, which will not likely be determined until the fall and early winter, as fuel production ramps up and carriers begin bunkering the new fuel in advance of the January 1, 2020 implementation date. The ocean carrier industry estimates it could increase annual fuel costs by $10-15 billion in 2020, which eventually would show up in the form of higher rates to shippers.

Both compliance options require vessels to be taken out of service for several days, to either be cleaned to receive the low-sulfur fuel or retrofitted with scrubbers. Carriers are scheduled to start these modifications in late summer and early fall, during the typical peak holiday shipping season and just before peak grain harvest season. Agricultural exporters could face impacts to vessel capacity, vessel availability, and freight rates during that time.

Trade with China: All shippers are carefully monitoring impacts from a possible increase in U.S. tariffs for certain Chinese products. Experts at the AgTC Annual Meeting expect another round of "front-loading" cargo in advance of a possible tariff announcement. As seen in 2018, surges of cargo moved in advance of the last U.S. tariff announcement put pressure on the overall supply chain. Impacts reverberated in the form of both ocean port and inland rail terminal congestion, limited chassis and container availability, and shipment delays throughout every leg of transit.

Chassis Challenges: The chassis industry is complex and fragmented, offering varied applications around the country. Multiple solutions have been applied regionally, all with challenges. Chassis are the metal frame and wheels (trailer) upon which a container is mounted for movement over the road. Shippers at the AgTC Annual Meeting said the current chassis delivery models used at ports and inland terminals are not keeping up with growing intermodal container demand. A recent white paper by the Federal Maritime Commission reported, "The current chassis provisioning model is broken and needs immediate address to improve supply chain velocity."[2] A container cannot move without this critical piece of equipment. Most chassis are provided to the industry via three major chassis providers. Moving a container involves contracting with multiple parties to provision chassis, including the ocean carrier, the trucker, the railroad, and the shipper. This complexity makes the supply chain less efficient. A so-called gray pool (interoperable pool of chassis) seemed to be the solution to which most shippers can ascribe. However, it is met with opposition from some key transportation and equipment providers.

Mr. Kemmsies' term VUCA resonated with many in the audience. With so many aspects of the industry in flux, the remainder of 2019 could be challenging.

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[1] For a more complete discussion of the fuel mandate, see the April 11, 2019 *Grain Transportation Report*, "International Trade Community Braces for New IMO Fuel Standard."

[2] A white paper submitted by: The Memphis Supply Chain Innovation Team, A Single Gray Chassis Pool Fosters Fluid Commerce and Improves Supply Chain Velocit, https://www.fmc.gov/wp-content/uploads/2019/05/MemphisSupplyChainWhitepaper.pdf

Grain Transportation Indicators

Table 1

Grain Transport Cost Indicators[1]

	Truck	Rail		Barge	Ocean	
For the week ending		Unit Train	Shuttle		Gulf	Pacific
06/19/19	206	282	230	293	193	168
06/12/19	208	288	235	n/a	196	170

[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

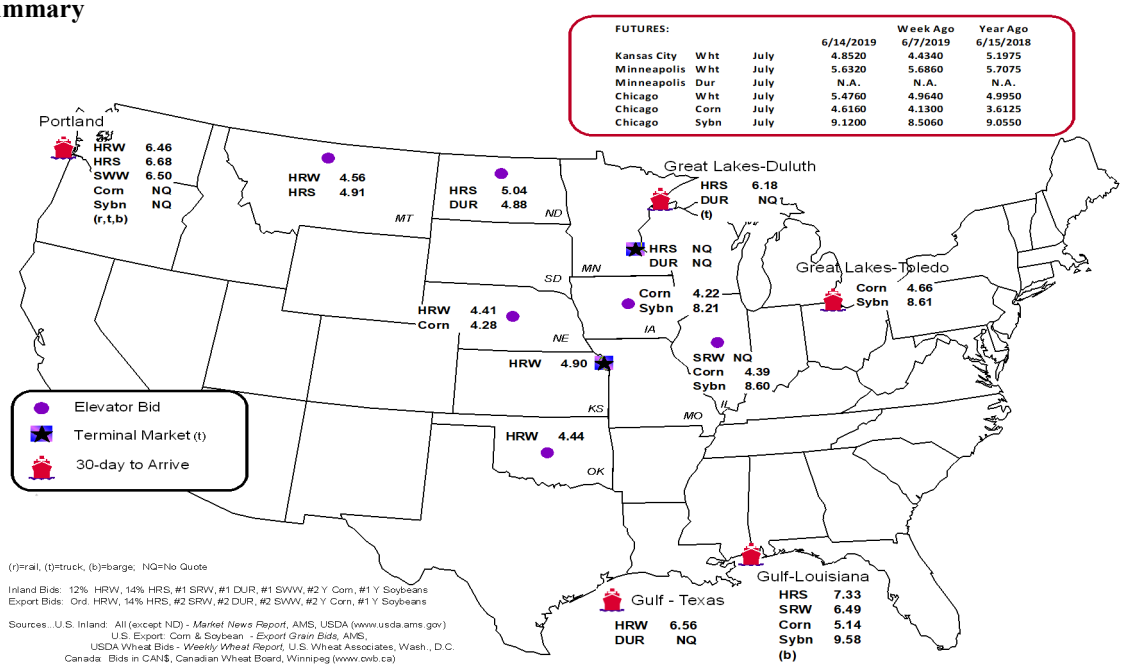
Market Update: U.S. Origins to Export Position Price Spreads ($/bushel)

Commodity	Origin--Destination	6/14/2019	6/7/2019
Corn	IL--Gulf	-0.75	-0.79
Corn	NE--Gulf	-0.86	-0.86
Soybean	IA--Gulf	-1.37	-1.37
HRW	KS--Gulf	-1.66	-1.66
HRS	ND--Portland	-1.64	-1.70

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]
6/12/2019[p]	1,254	894	3,979	265	6,392	6/8/2019	2,519
6/05/2019[r]	1,333	1,709	5,339	0	8,381	6/1/2019	1,780
2019 YTD[r]	21,303	28,331	129,161	8,246	187,041	2019 YTD	53,717
2018 YTD[r]	10,128	30,486	158,472	10,403	209,489	2018 YTD	52,248
2019 YTD as % of 2018 YTD	210	93	82	79	89	% change YTD	103
Last 4 weeks as % of 2018[2]	234	231	67	69	88	Last 4wks % 2018	77
Last 4 weeks as % of 4-year avg.[2]	476	107	93	119	111	Last 4wks % 4 yr	97
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.

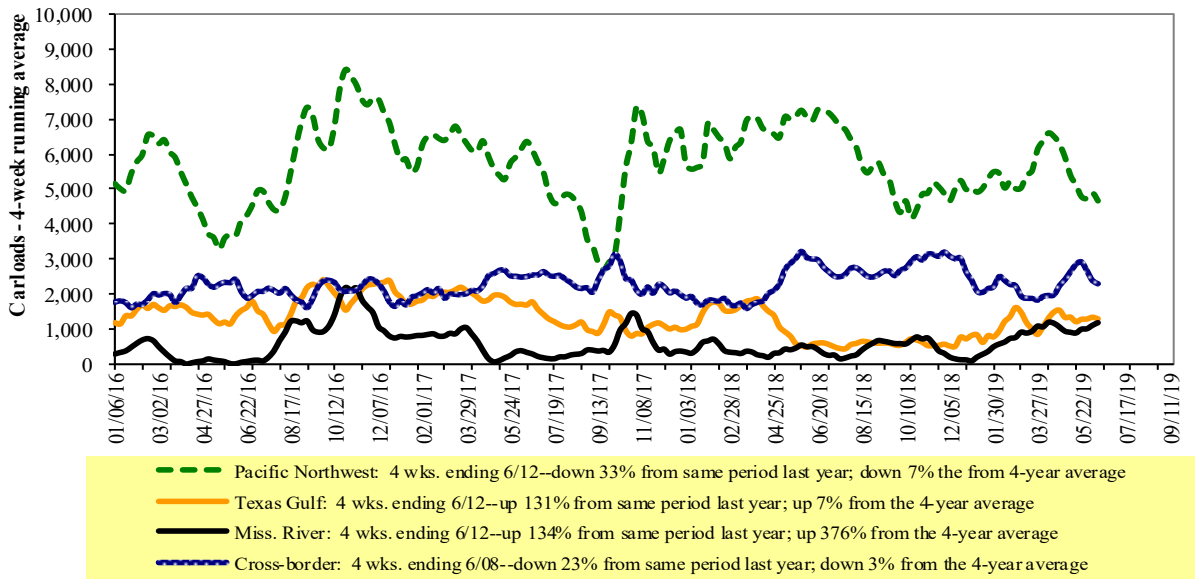
[3] Cross-border weekly data is approximately 15 percent below the Association of American Railroads' reported weekly carloads received by Mexican railroads to reflect switching between KCSM and Grupo Mexico.

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	
6/8/2019	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,601	2,770	11,002	1,311	4,529	21,213	4,565	4,058
This week last year	1,916	2,495	13,127	821	4,881	23,240	3,665	5,184
2019 YTD	44,713	64,804	252,397	25,702	117,354	504,970	100,499	99,146
2018 YTD	44,773	57,250	286,242	21,821	121,146	531,232	86,231	105,665
2019 YTD as % of 2018 YTD	100	113	88	118	97	95	117	94
Last 4 weeks as % of 2018*	95	116	87	112	94	94	109	84
Last 4 weeks as % of 3-yr avg.**	107	106	96	127	95	99	128	96
Total 2018	98,978	133,001	635,458	48,638	267,713	1,183,788	211,813	244,697

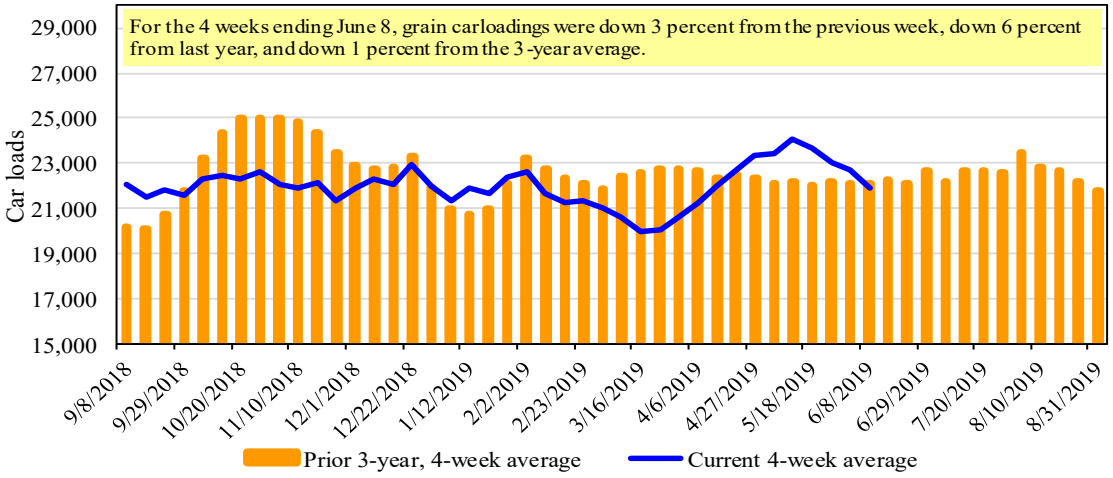
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

**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							
6/13/2019		Jun-19	Jun-18	Jul-19	Jul-18	Aug-19	Aug-18	Sep-19	Sep-18
BNSF[3]	COT grain units	no offer	no offer	0	1	0	no bids	0	no bids
	COT grain single-car[5]	no offer	no offer	0	150	0	0	35	0
UP[4]	GCAS/Region 1	no offer	no offer	no offer	no offer	no bids	no bids	n/a	n/a
	GCAS/Region 2	no offer	no offer	no offer	no offer	no bids	no bids	n/a	n/a

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

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

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

[4]UP - GCAS = Grain Car Allocation System

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

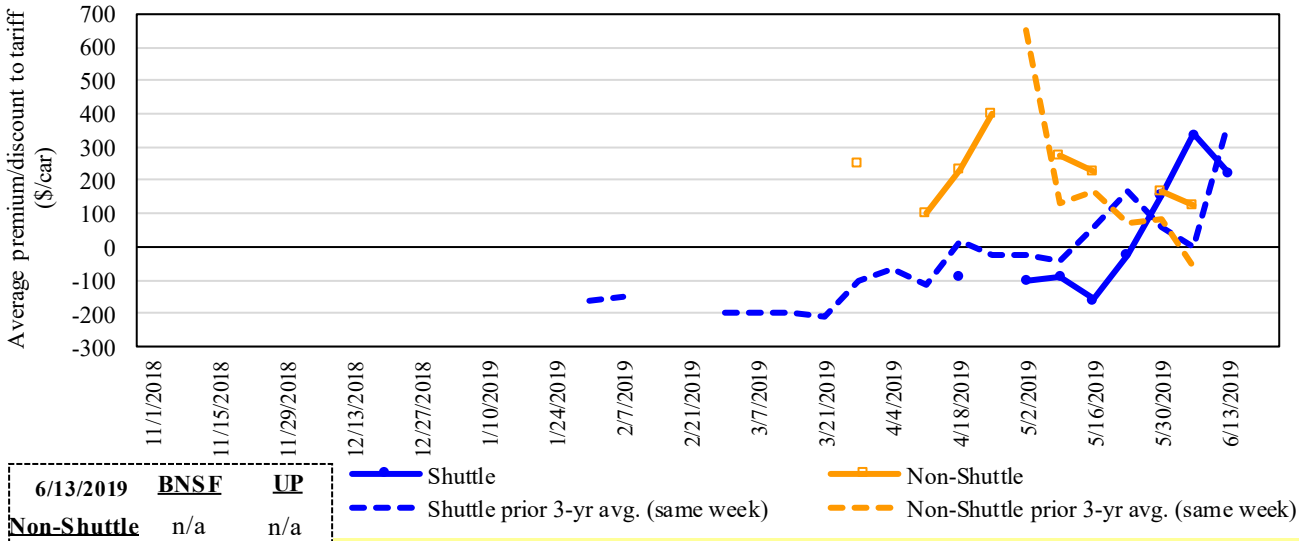
Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

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

Source: Transportation & Marketing 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 June 2019, Secondary Market

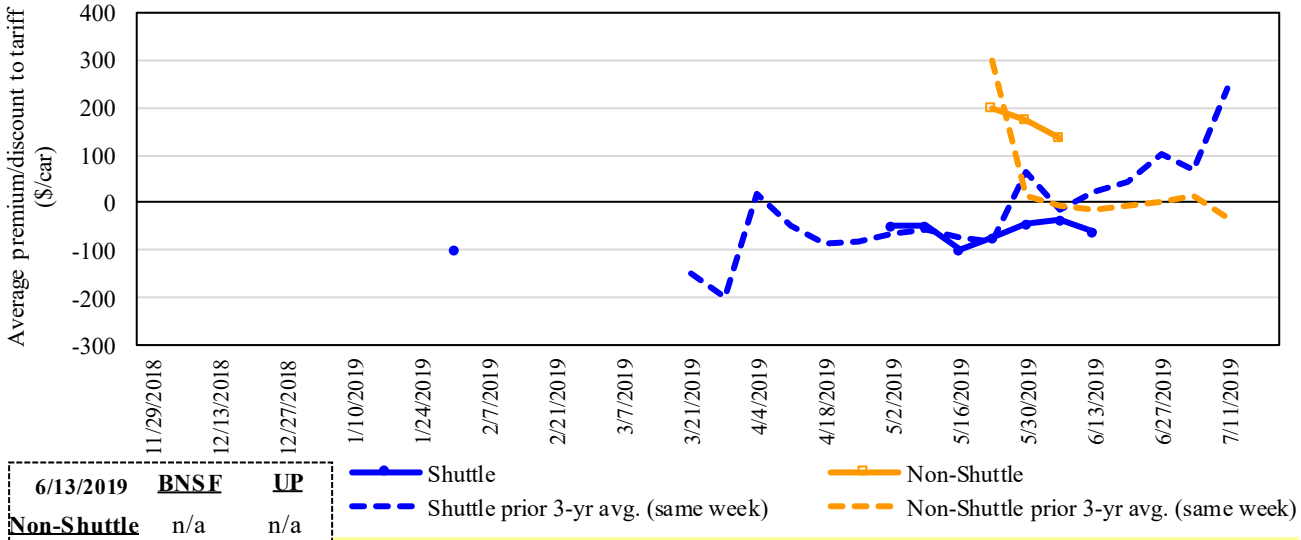


6/13/2019	BNSF	UP
Non-Shuttle	n/a	n/a
Shuttle	$250	$200

There were no Non-Shuttle bids/offers this week.
Average Shuttle bids/offers fell $114 this week and are $114 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 July 2019, Secondary Market



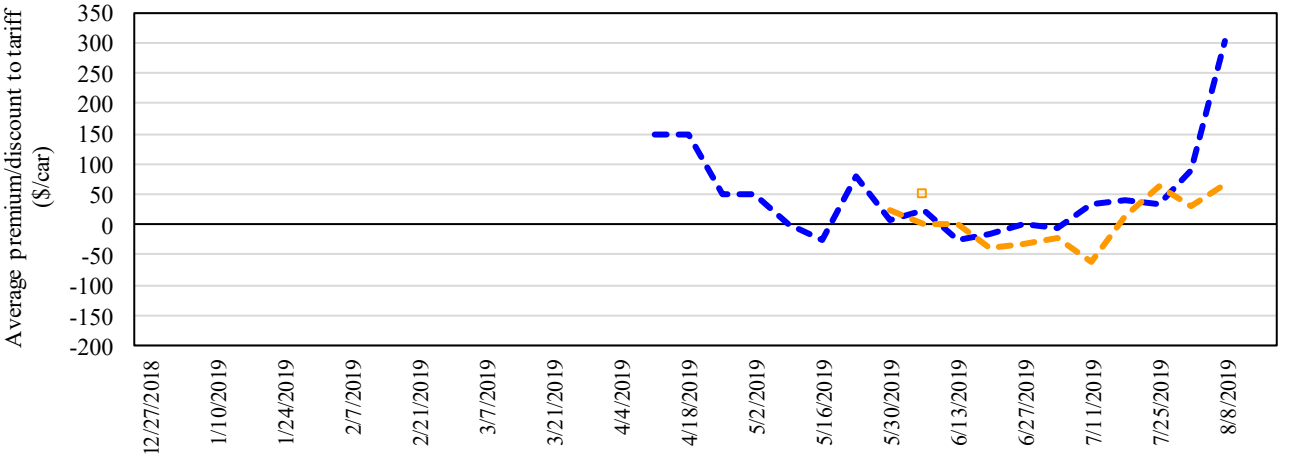
6/13/2019	BNSF	UP
Non-Shuttle	n/a	n/a
Shuttle	-$50	-$75

There were no Non-Shuttle bids/offers this week.
Average Shuttle bids/offers fell $25 this week and are $25 below 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 August 2019, Secondary Market



6/13/2019	BNSF	UP
Non-Shuttle	n/a	n/a
Shuttle	n/a	n/a

There were no Non-Shuttle bids/offers this week.
There were no Shuttle bids/offers this week.

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: 6/13/2019		Delivery period					
		Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19
Non-shuttle	**BNSF-GF**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
	Change from same week 2018	n/a	n/a	n/a	n/a	n/a	n/a
	UP-Pool	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
	Change from same week 2018	n/a	n/a	n/a	n/a	n/a	n/a
Shuttle	**BNSF-GF**	**250**	**(50)**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	(28)	(50)	n/a	n/a	n/a	n/a
	Change from same week 2018	(325)	(333)	n/a	n/a	n/a	n/a
	UP-Pool	**200**	**(75)**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	(200)	0	n/a	n/a	n/a	n/a
	Change from same week 2018	50	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]

June, 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	$106	$40.61	$1.11	3
	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	$187	$46.79	$1.27	0
	Sioux Falls, SD	Galveston-Houston, TX	$6,976	$0	$69.28	$1.89	3
	Northwest KS	Galveston-Houston, TX	$4,801	$205	$49.71	$1.35	0
	Amarillo, TX	Los Angeles, CA	$5,121	$285	$53.68	$1.46	2
Corn	Champaign-Urbana, IL	New Orleans, LA	$4,000	$211	$41.82	$1.06	2
	Toledo, OH	Raleigh, NC	$6,581	$0	$65.35	$1.66	4
	Des Moines, IA	Davenport, IA	$2,258	$45	$22.87	$0.58	0
	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	$3,860	$131	$39.64	$1.01	7
	Des Moines, IA	Los Angeles, CA	$5,720	$383	$60.60	$1.54	7
Soybeans	Minneapolis, MN	New Orleans, LA	$3,631	$208	$38.13	$1.04	-11
	Toledo, OH	Huntsville, AL	$5,459	$0	$54.21	$1.48	3
	Indianapolis, IN	Raleigh, NC	$6,698	$0	$66.51	$1.81	4
	Indianapolis, IN	Huntsville, AL	$4,937	$0	$49.03	$1.33	4
	Champaign-Urbana, IL	New Orleans, LA	$4,745	$211	$49.22	$1.34	0
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	$336	$63.04	$1.72	4
Corn	Minneapolis, MN	Portland, OR	$5,180	$0	$51.44	$1.31	4
	Sioux Falls, SD	Tacoma, WA	$5,140	$0	$51.04	$1.30	4
	Champaign-Urbana, IL	New Orleans, LA	$3,800	$211	$39.83	$1.01	2
	Lincoln, NE	Galveston-Houston, TX	$3,880	$0	$38.53	$0.98	5
	Des Moines, IA	Amarillo, TX	$4,060	$165	$41.96	$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	$244	$49.84	$1.36	0
	Toledo, OH	Huntsville, AL	$4,634	$0	$46.02	$1.25	6
	Grand Island, NE	Portland, OR	$5,710	$344	$60.12	$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: June, 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	$6,643	$146	$69.37	$1.89	0
	KS	Guadalajara, JA	$7,371	$611	$81.56	$2.22	4
	TX	Salinas Victoria, NL	$4,329	$89	$45.14	$1.23	1
Corn	IA	Guadalajara, JA	$8,678	$522	$94.00	$2.39	7
	SD	Celaya, GJ	$7,880	$0	$80.51	$2.04	2
	NE	Queretaro, QA	$8,207	$304	$86.96	$2.21	2
	SD	Salinas Victoria, NL	$6,905	$0	$70.55	$1.79	2
	MO	Tlalnepantla, EM	$7,573	$297	$80.41	$2.04	3
	SD	Torreon, CU	$7,480	$0	$76.43	$1.94	2
Soybeans	MO	Bojay (Tula), HG	$8,497	$494	$91.86	$2.50	7
	NE	Guadalajara, JA	$8,982	$517	$97.06	$2.64	6
	IA	El Castillo, JA	$9,110	$0	$93.08	$2.53	2
	KS	Torreon, CU	$7,814	$361	$83.52	$2.27	6
Sorghum	NE	Celaya, GJ	$7,657	$466	$83.00	$2.11	6
	KS	Queretaro, QA	$8,000	$183	$83.61	$2.12	2
	NE	Salinas Victoria, NL	$6,633	$147	$69.27	$1.76	3
	NE	Torreon, CU	$7,067	$333	$75.61	$1.92	6

[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

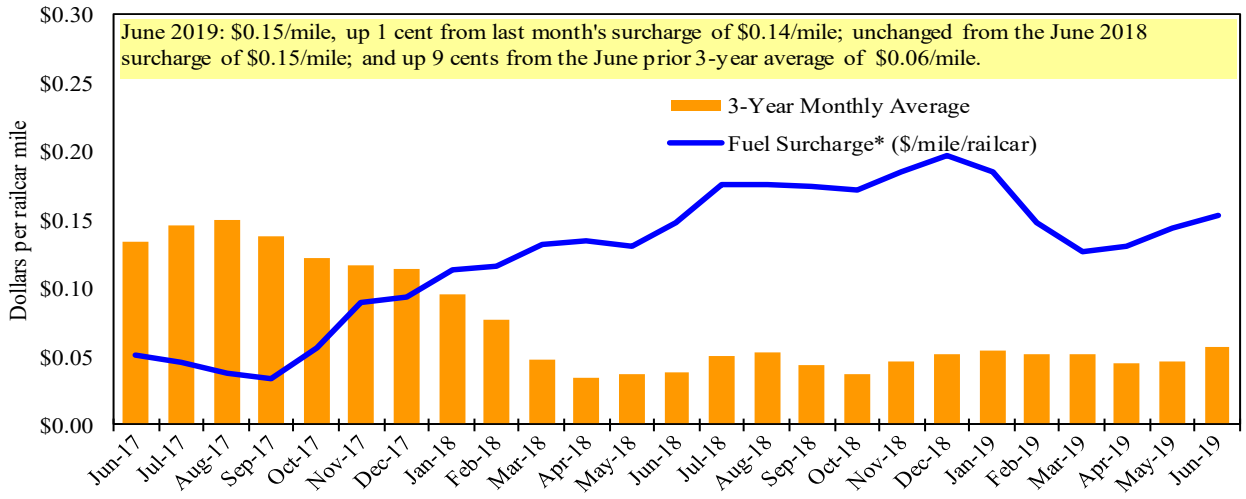
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

[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.

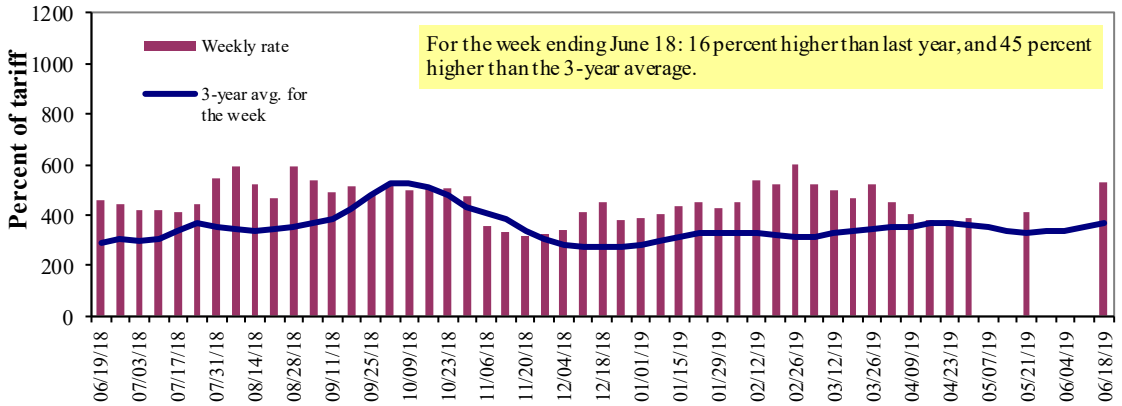
**CSX strike price changed from $2.00/gal. to $3.75/gal. starting January 1, 2015.

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]	6/18/2019	-	-	528	310	270	270	258
	6/11/2019	-	-	-	-	288	288	258
$/ton	6/18/2019	-	-	24	12	12.66	10.91	8.10
	6/11/2019	-	-	-	-	13.51	11.64	8.10
Current week % change from the same week:								
	Last year	-	-	16	-11	-27	-32	-16
	3-year avg. [2]	-	-	45	17	2	2	11
Rate[1]	July	467	440	442	317	278	278	273
	September	425	408	408	333	400	400	325

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

Source: Transportation & Marketing Programs/AMS/USDA

Figure 9
Benchmark tariff rates

Calculating barge rate per ton:
(Rate * 1976 tariff benchmark rate per ton)/100

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

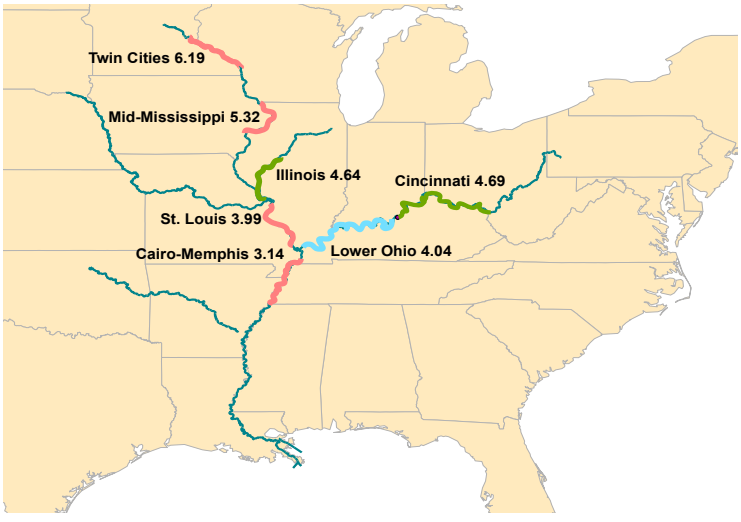
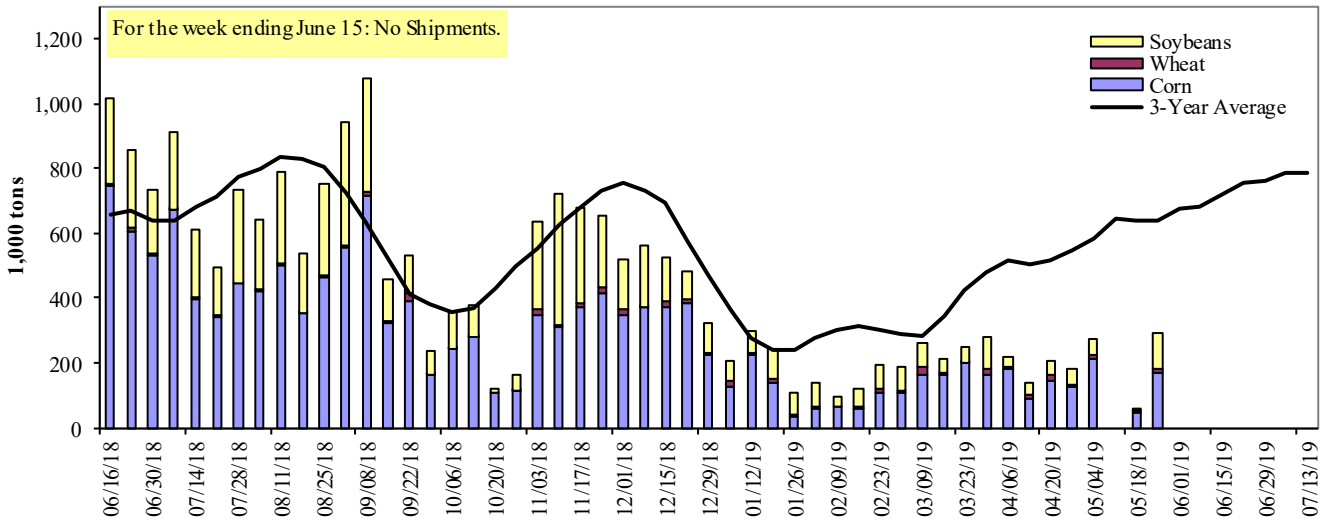


Figure 10

Barge Movements on the Mississippi River[1] (Locks 27 - Granite City, IL)



[1] The 3-year average is a 4-week moving average.

Source: U.S. Army Corps of Engineers

Table 10

Barge Grain Movements (1,000 tons)

For the week ending 06/15/2019	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	39	0	27	0	66
Winfield, MO (L25)	0	0	0	0	0
Alton, IL (L26)	0	0	0	0	0
Granite City, IL (L27)	0	0	0	0	0
Illinois River (LAGRANGE)	0	0	0	0	0
Ohio River (OLMSTED)	181	17	132	0	329
Arkansas River (L1)	0	0	0	0	0
Weekly total - 2019	181	17	132	0	329
Weekly total - 2018	807	30	355	0	1,192
2019 YTD[1]	5,522	876	4,133	69	10,600
2018 YTD[1]	10,484	710	5,136	63	16,393
2019 as % of 2018 YTD	53	123	80	109	65
Last 4 weeks as % of 2018[2]	27	33	59	52	36
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.

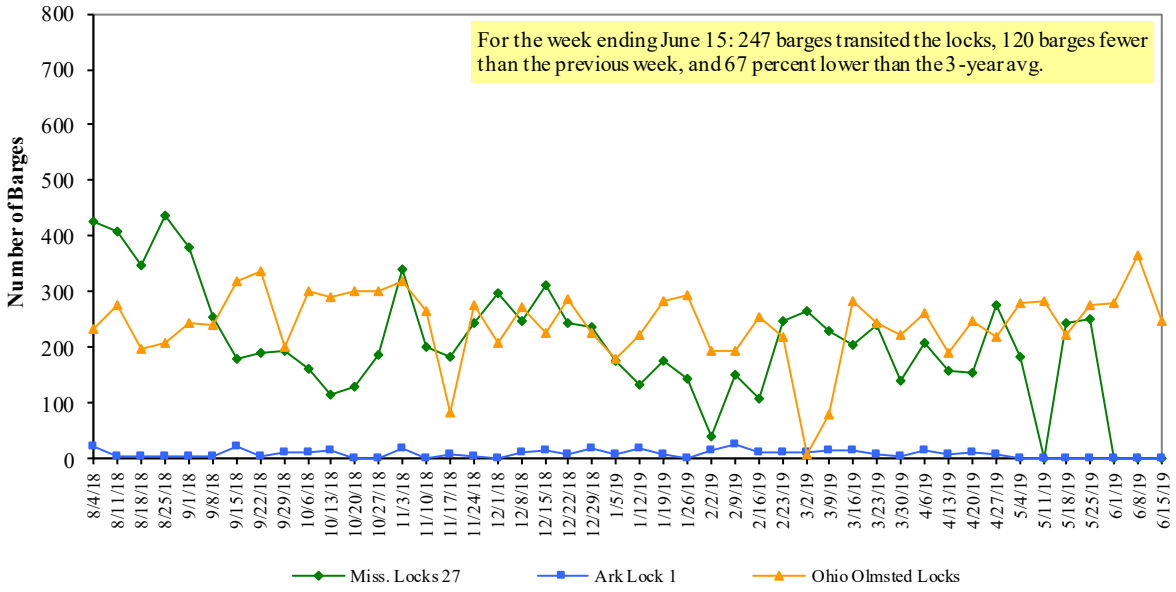
[2] As a percent of same period in 2018.

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

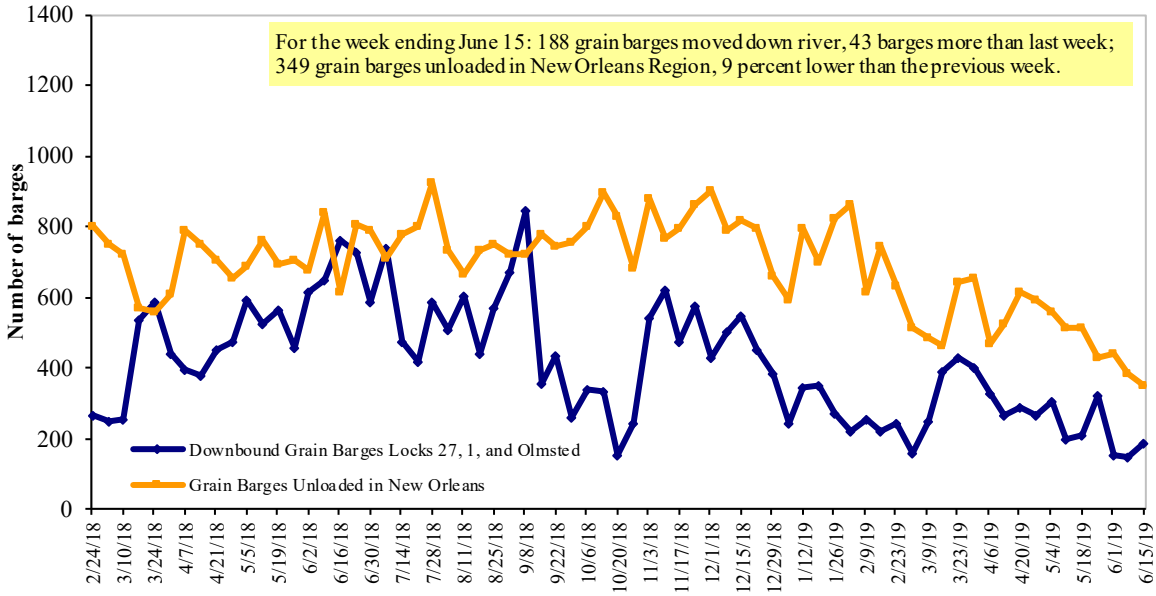
Upbound Empty Barges Transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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 6/17/2019 (US $/gallon)

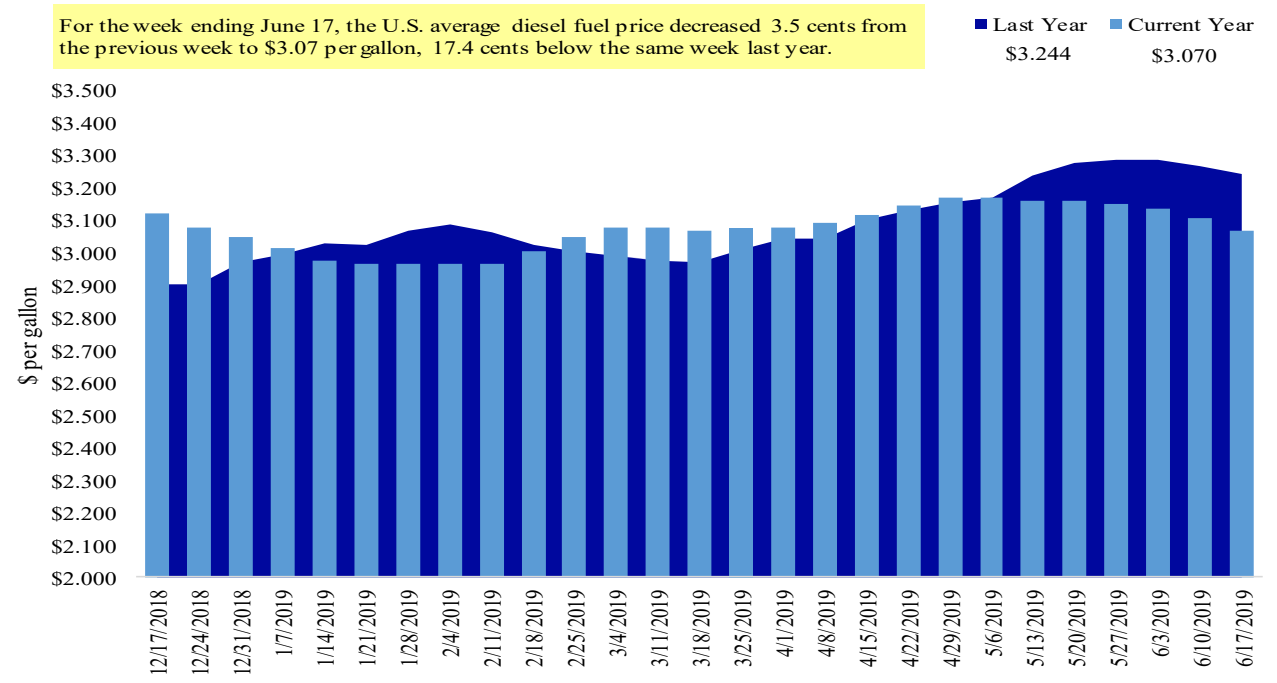
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.099	-0.026	-0.141
	New England	3.153	-0.032	-0.137
	Central Atlantic	3.282	-0.026	-0.115
	Lower Atlantic	2.964	-0.025	-0.157
II	Midwest	2.957	-0.045	-0.216
III	Gulf Coast	2.820	-0.023	-0.196
IV	Rocky Mountain	3.072	-0.042	-0.267
V	West Coast	3.666	-0.049	-0.087
	West Coast less California	3.238	-0.044	-0.235
	California	4.006	-0.052	0.030
Total	U.S.	3.070	-0.035	-0.174

[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]									
6/6/2019	2,430	854	1,347	948	189	5,768	7,148	11,266	24,182
This week year ago	948	524	1,377	1,265	103	4,217	15,828	8,948	28,993
Cumulative exports-marketing year[2]									
2018/19 YTD	191	30	78	58	23	380	41,259	35,672	77,311
2017/18 YTD	67	78	113	52	0	310	40,409	47,202	87,920
YTD 2018/19 as % of 2017/18	285	38	69	112	#DIV/0!	123	102	76	88
Last 4 wks as % of same period 2017/18	151	70	52	43	66	74	52	130	80
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 6/06/2019	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	1,667	15,043	14,008	7	13,691
Japan	540	11,613	10,634	9	11,247
Korea	0	3,694	5,083	(27)	4,754
Colombia	19	4,555	4,260	7	4,678
Peru	0	1,992	2,816	(29)	2,975
Top 5 Importers	**2,226**	**36,897**	**36,800**	**0**	**37,344**
Total US corn export sales	**2,706**	**48,407**	**56,237**	**(14)**	**53,184**
% of Projected	5%	86%	91%		
Change from prior week[2]	**92**	**169**	**936**		
Top 5 importers' share of U.S. corn export sales	82%	76%	65%		70%
USDA forecast, June 2019	**54,707**	**55,980**	**62,036**	**(10)**	
Corn Use for Ethanol USDA forecast, June 2019	**139,700**	**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 6/06/2019	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	63	13,630	28,678	(52)	31,228
Mexico	505	4,729	4,269	11	3,716
Indonesia	5	2,025	2,298	(12)	2,250
Japan	110	2,351	2,103	12	2,145
Netherlands	0	1,927	1,698	13	2,209
Top 5 importers	**683**	**24,662**	**39,045**	**(37)**	**41,549**
Total US soybean export sales	**1,795**	**46,938**	**56,150**	**(16)**	**55,113**
% of Projected	3%	101%	97%		
Change from prior week[2]	**275**	**256**	**520**		
Top 5 importers' share of U.S. soybean export sales	38%	53%	70%		**75%**
USDA forecast, June 2019	**53,134**	**46,322**	**58,011**	**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 6/06/2019	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	761	349	118	2,781
Japan	525	652	(20)	2,649
Philippines	737	540	37	2,441
Korea	307	463	(34)	1,257
Nigeria	481	140	244	1,254
Indonesia	284	100	184	1,076
Taiwan	245	181	35	1,066
China	0	0	n/a	944
Colombia	0	156	(100)	714
Thailand	196	264	(26)	618
Top 10 importers	**3,534**	**2,844**	24	**14,800**
Total US wheat export sales	**6,148**	**4,527**	**36**	**22,869**
% of Projected	24%	18%		
Change from prior week[2]	**48**	**302**		
Top 10 importers' share of U.S. wheat export sales	57%	63%		65%
USDA forecast, June 2019	**25,886**	**24,550**	**5**	

(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 06/13/19	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	233	166	141	6,364	5,631	113	84	69	13,315
Corn	110	236	47	6,057	10,322	59	41	54	20,024
Soybeans	165	208	79	4,535	4,962	91	79	153	7,719
Total	**508**	**610**	**83**	**16,955**	**20,915**	**81**	**59**	**71**	**41,058**
Mississippi Gulf									
Wheat	18	54	33	2,497	1,989	126	83	71	3,896
Corn	310	447	69	12,226	16,299	75	55	65	33,735
Soybeans	403	362	112	11,125	10,930	102	108	166	28,124
Total	**731**	**862**	**85**	**25,847**	**29,218**	**88**	**71**	**87**	**65,755**
Texas Gulf									
Wheat	88	206	43	3,319	1,853	179	326	153	3,198
Corn	30	0	n/a	362	375	96	28	40	730
Soybeans	0	0	n/a	0	67	0	0	0	69
Total	**119**	**206**	**58**	**3,680**	**2,295**	**160**	**190**	**132**	**3,997**
Interior									
Wheat	36	38	96	785	705	111	126	141	1,614
Corn	192	154	125	3,424	3,955	87	86	89	8,650
Soybeans	136	140	97	3,040	3,027	100	90	127	6,729
Total	**364**	**331**	**110**	**7,249**	**7,687**	**94**	**91**	**106**	**16,993**
Great Lakes									
Wheat	20	38	53	409	242	169	195	207	894
Corn	0	0	n/a	0	174	0	0	0	404
Soybeans	0	62	0	145	152	95	91	190	1,192
Total	**20**	**100**	**21**	**554**	**568**	**97**	**96**	**128**	**2,491**
Atlantic									
Wheat	0	0	n/a	32	64	51	n/a	0	69
Corn	0	0	n/a	75	67	111	124	371	138
Soybeans	7	1	526	593	1,032	58	90	155	2,047
Total	**7**	**1**	**526**	**700**	**1,163**	**60**	**95**	**172**	**2,253**
U.S. total from ports*									
Wheat	395	501	79	13,405	10,484	128	125	97	22,986
Corn	642	837	77	22,143	31,193	71	53	64	63,682
Soybeans	711	772	92	19,438	20,171	96	94	152	45,879
Total	**1,748**	**2,111**	**83**	**54,986**	**61,848**	**89**	**75**	**88**	**132,547**

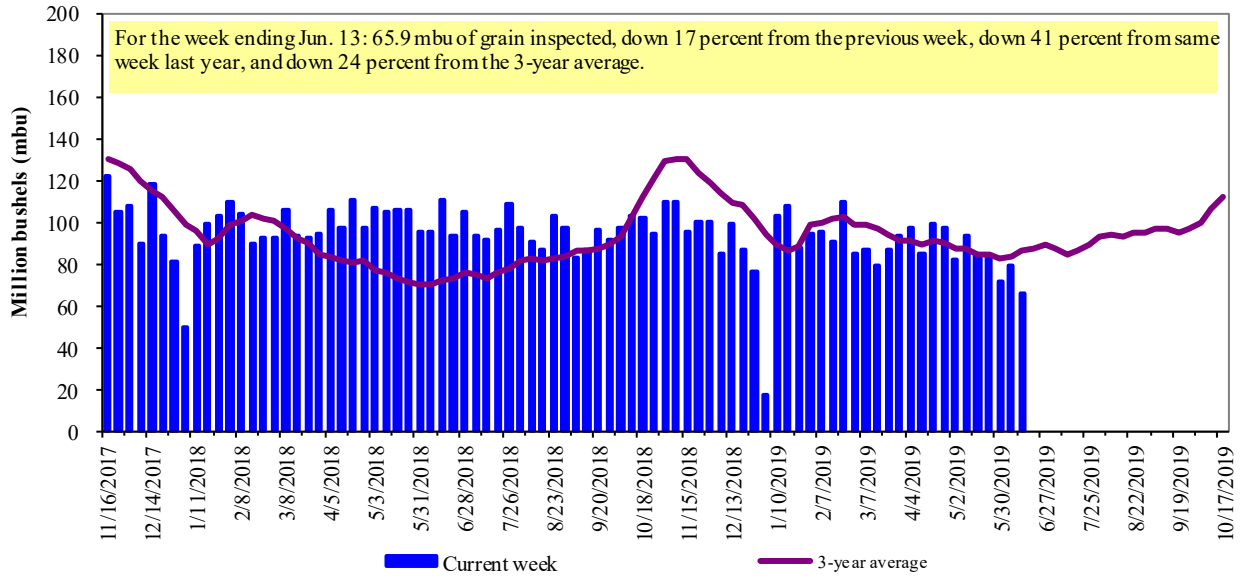
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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

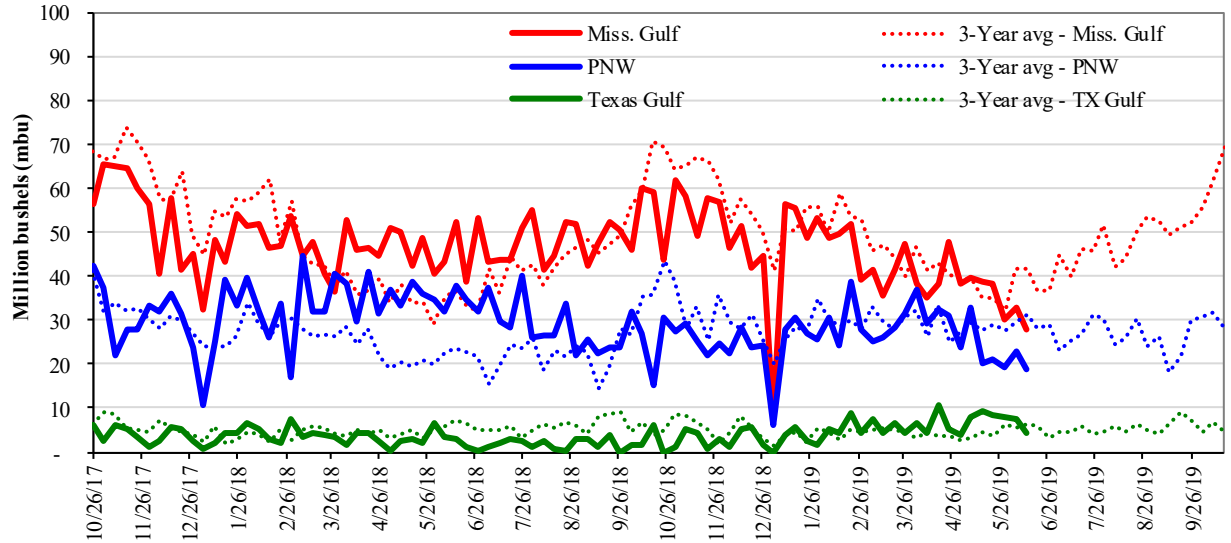
U.S. grain inspected for export (wheat, corn, and soybeans)



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 06/13/19 inspections (mbu):	
Mississippi Gulf:	27.7
PNW:	18.9
Texas Gulf:	4.4

Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last Week:	down 16	down 41	down 21	down 18
Last Year (same week):	down 47	up 47	down 42	down 50
3-yr avg. (4-wk. mov. Avg):	down 26	down 17	down 25	down 35

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

Ocean Transportation

Table 17

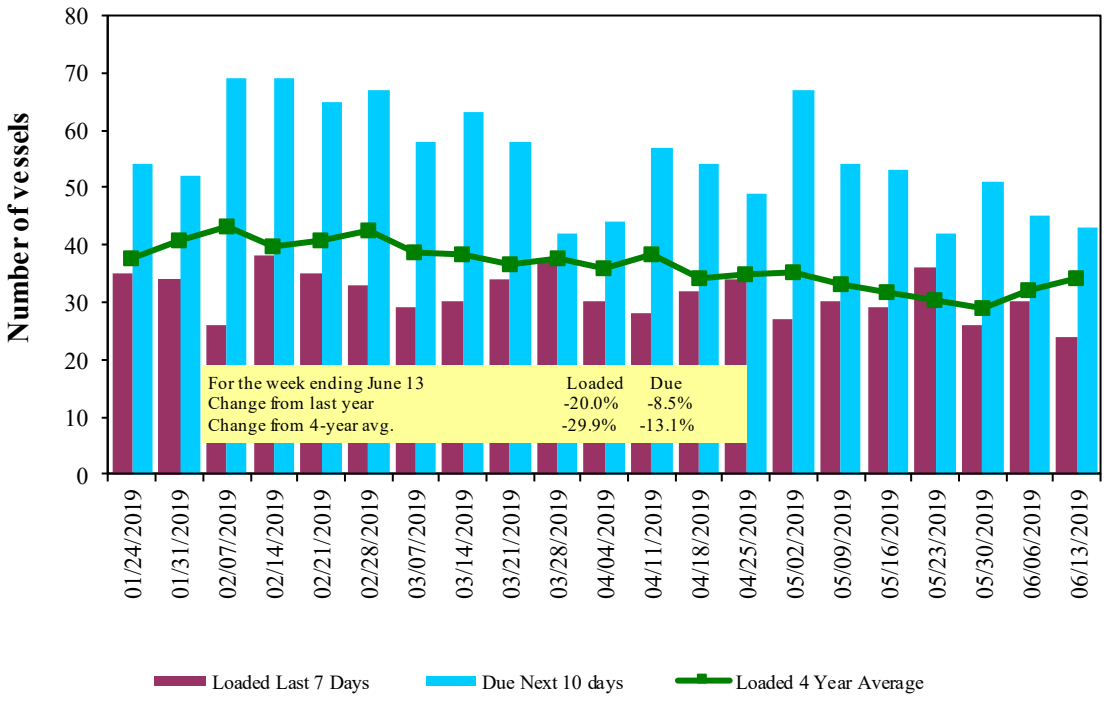
Weekly Port Region Grain Ocean Vessel Activity (number of vessels)

	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
6/13/2019	48	24	43	11
6/6/2019	46	30	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

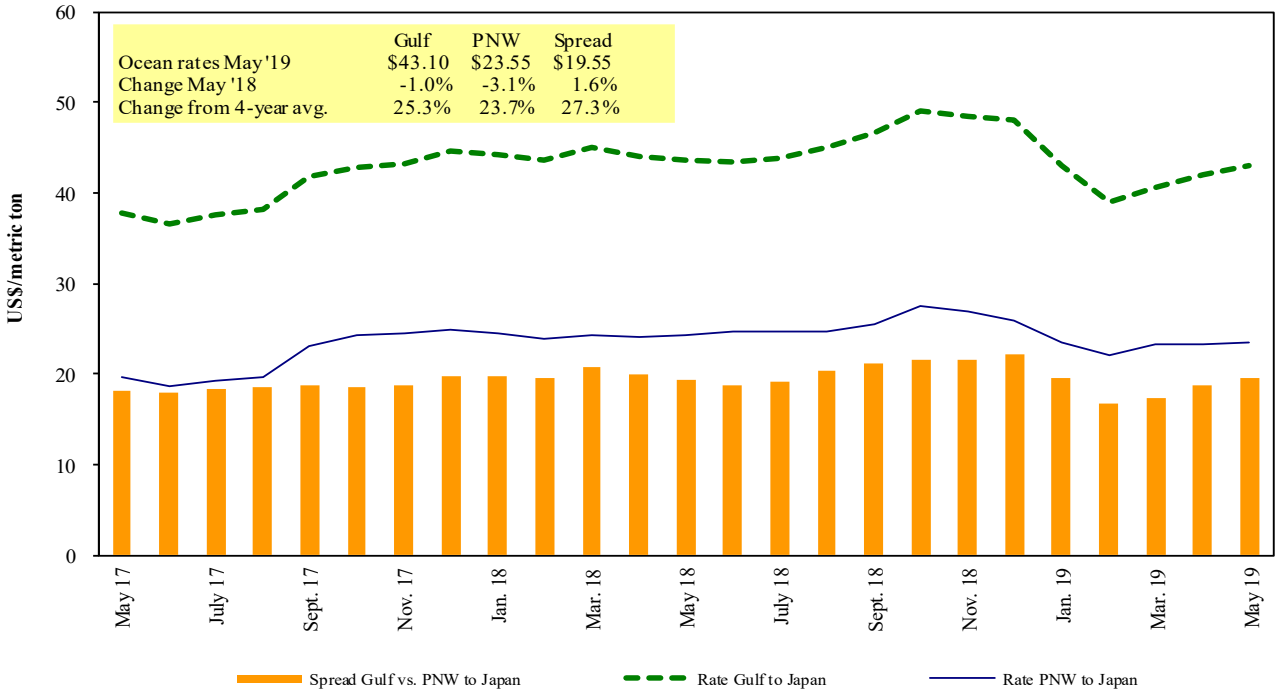
U.S. Gulf Vessel Loading Activity



Source: Transportation & Marketing Program/AMS/USDA
[1]U.S. 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 06/15/2019

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
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

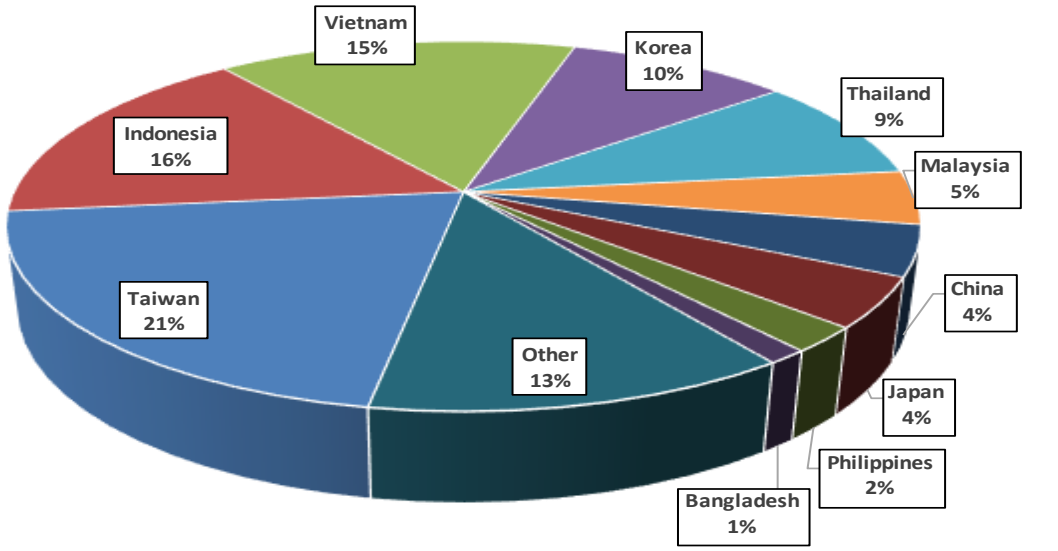
Rates shown are per metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicated; op = option

*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.

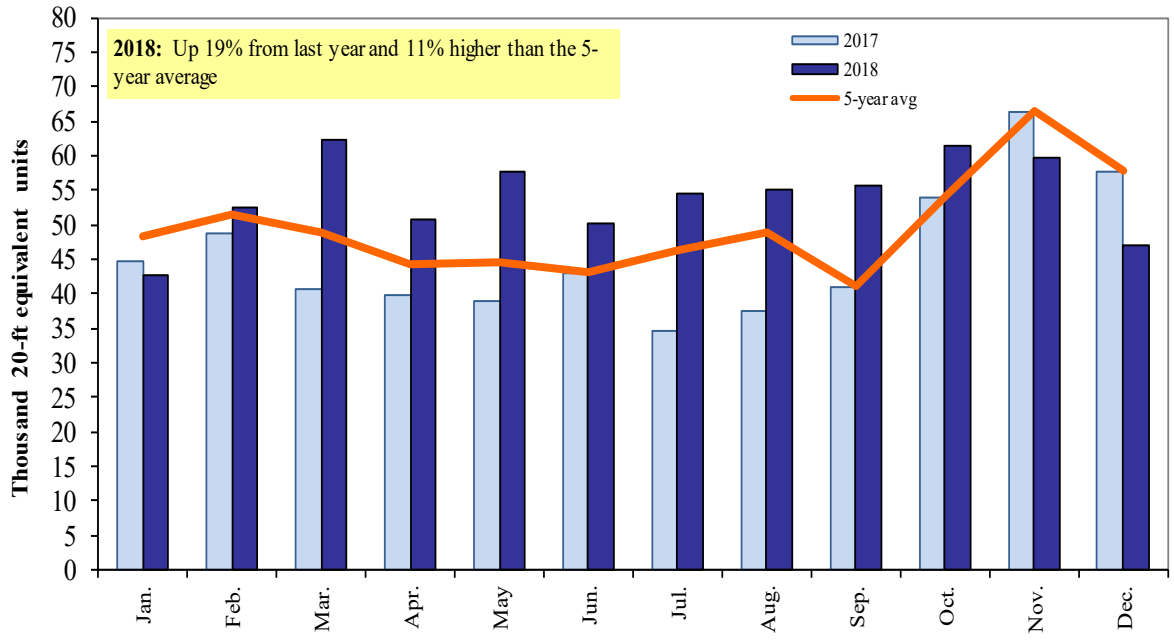
Figure 18
Top 10 Destination Markets for U.S. Containerized Grain Exports, 2018



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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