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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September 12, 2019

Contents

The next release is September 19, 2019

WEEKLY HIGHLIGHTS

Weekly Grain Inspections Down but Corn Increases

For the week ending September 5, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions reached 1.96 million metric tons (mmt). Inspections were down 15 percent from the previous week, down 12 percent from last year, and 24 percent below the 3-year average. Although corn inspections jumped 65 percent from the past week, the increase could not offset the 28 percent drop in the amount of wheat inspected nor the 30 percent decrease in soybean inspections. Grain inspections decreased 46 percent, from the previous week, in the Pacific Northwest (PNW) but increased 14 percent in the Mississippi Gulf. During the last four weeks, inspections are below last year and the 3-year average by 10 and 16 percent, respectively.

Columbia River Barge Traffic Halted Until the End of the Month

On September 5, the U.S. Army Corps of Engineers closed the Bonneville Dam on the Columbia River due to a crack in a concrete sill at the foot of the gate. Less than 40 miles from Portland, OR, this portion of the river is critical to wheat exporters seeking access to multiple grain elevators located downriver. According to the Associated Press, the Pacific Northwest Waterways Association reported that, "Eight million tons of cargo move on the Columbia and Snake rivers each year, and 53 percent of U.S. wheat exports were transported on the Columbia River in 2017…" The Army Corps of Engineers estimates repairs will take until the end of the month and expects traffic to resume by September 30.

Grain Movements on the Mississippi Remain Slow

Major navigation issues on the Mississippi River have slowed traffic and reduced demand for shipping. This week's **total downbound tonnage** on the Mississippi, Ohio, and Arkansas Rivers was 50 percent lower than the previous week and 72 percent lower than the same week last year. As of Tuesday afternoon, over 100 downbound barge tows and several upbound tows were waiting at Victoria Bend on the lower Mississippi, due to low water. Delays and tow size restrictions due to shoaling and lock maintenance are a concern in other locations on the Mississippi as well. Despite some delays on the Ohio River, the volume of grain measured at Olmsted Lock and Dam was up 50 percent. Grain movements on the Arkansas River were also down from last week, but shipments on the Arkansas contribute only a small fraction to total grain exports. **Decreased barge rates** reflect lowered demand from shippers in reaction to these delays. Carriers have reported difficulty finding bids from shippers for services in some locations.

Snapshots by Sector

Export Sales

For the week ending August 29, **unshipped balances** of wheat, corn, and soybeans totaled 8.5 mmt. This indicates an 18 percent decrease in outstanding sales, compared to the same time last year. Net **corn export sales** were negative .166 mmt, a low for the current marketing year. Net **soybean export sales** were .069 mmt, down 27 percent from the past week. Net weekly **wheat export sales** reached .312 mmt, down 53 percent from the previous week.

Rail

U.S. Class I railroads originated 22,060 **grain carloads** during the week ending August 31. This is a 4 percent increase from the previous week, 3 percent less than last year, and 1 percent more than the 3-year average.

Average September shuttle **secondary railcar** bids/offers (per car) were $342 below tariff for the week ending September 5. This is $54 less than last week and $223 lower than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending September 7, **barge grain movements** totaled 357,212 tons. This is a 51 percent decrease from the previous week and 72 percent less than the same period last year.

For the week ending September 7, 221 grain barges **moved down river**. This is 244 fewer barges than the previous week. There were 679 grain barges **unloaded in New Orleans**, 6 percent more than the previous week.

Ocean

For the week ending September 5, 32 **ocean-going grain vessels** were loaded in the Gulf. This is 3 percent more than the same period last year. Thirty-three vessels are expected to be loaded within the next 10 days. This is 41 percent fewer than the same period last year.

As of September 5, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $52.50. This is 1 percent more than the previous week. The rate from the PNW to Japan was $30.00 per mt, 3 percent more than the previous week.

Fuel

For the week ending September 9, the U.S. average **diesel fuel price** decreased 0.5 cents from the previous week to $2.971 per gallon. This price is 28.7 cents less than the same week last year.

Preferred citation: U.S. Dept. of Agriculture, Agricultural Marketing Service. *Grain Transportation Report.* September 12, 2019.
Web: http://dx.doi.org/10.9752/TS056.09-12-2019

Feature Article/Calendar

Profiles of Top U.S. Agricultural Ports, 2017

The Transportation Services Division of USDA's Agricultural Marketing Service (AMS) has updated the Profiles of Top U.S. Agricultural Ports, a report detailing the importance of U.S. ocean ports to agricultural imports and exports. The report provides data that quantifies and describes the movement of agricultural cargo through the top 20 U.S. ocean ports for agricultural trade, including breakouts of the top containerized and bulk movement for these products through the individual ports. It further provides data on the use of refrigeration, the top origin and destination markets, and the top shipping lines used. The data are sourced from PIERS, a collection of bills of lading and manifest data that provide a view of agricultural trade by how it moves through the ocean transportation network.[1] This article provides a brief introduction of the top five ports in 2017. Readers are encouraged to find more information about this report on the AMS website at *Profiles of Top U.S. Agricultural Ports*.

Top 5 U.S. Ports Moving Waterborne Agricultural Trade

In 2017, more than 197 million metric tons (mmt) of waterborne agricultural cargo moved through U.S. seaports. The top five ports (by volume) moving waterborne agricultural trade were the New Orleans Ports Region[2] (37 percent of total U.S. waterborne agricultural trade); New York/New Jersey (5 percent); Kalama (5 percent); Los Angeles (5 percent); and Tacoma (4 percent). Together, these five ports represented about 56 percent of the waterborne agricultural trade in 2017. Table 1 summarizes the tonnages of total agricultural exports and imports, along with their percentages of the total, moved by these ports. As indicated, U.S. agricultural trade is largely dominated by exports. The New Orleans Port Region was the leading seaport, moving 47 percent of the total exports and 37 percent of total waterborne agricultural trade.

Each of the major coastlines and their respective seaports offer unique opportunities and services for agricultural shippers. The grain industry takes advantage of the vast transportation system around the country to move grain and other agricultural products through all major seaports. The next section provides a summary of the key characteristics of export and import seaports in 2017.

Table 1: Top 5 U.S. Ports Moving Waterborne Agricultural Trades, Total, and Shares

Rank	U.S. Ports	State	Exports (Metric Tons)	% of Exports	Imports (Metric Tons)	% of Imports	Total (Metric Tons)	Share
1	New Orleans Port Region	LA	70,584,163	47%	1,952,594	4%	72,536,757	37%
2	New York	NY	1,312,863	1%	8,829,822	19%	10,142,685	5%
3	Kalama	WA	10,125,680	7%	-	-	10,125,680	5%
4	Los Angeles	CA	6,665,401	4%	2,595,601	6%	9,261,003	5%
5	Tacoma	WA	7,480,590	5%	256,165	1%	7,736,755	4%

Source: 2017 PIERS

Top U.S. Export and Import Ports

Grain and soybean products combined are the largest U.S. agricultural exports by volume. Therefore, ports that specialize in moving these products will rank at the top for agricultural exports. In 2017, the New Orleans Port Region was the top U.S. port region for moving agricultural trade (70.6 mmt for exports and 1.95 mmt for imports). The region boasts a string of export grain elevators along the Mississippi River from Baton Rouge to Myrtle Grove. All modes of transportation (ocean, barge, rail, and truck) connect in this important port region, allowing ocean-going vessels to serve ports 228 miles upriver from the Gulf of Mexico. The Port of Kalama ranked second for waterborne agricultural exports, which showcases the importance of the Pacific Northwest (PNW) for bulk grain exports. With a 7-mile industrial area of riverfront property adjacent to the deep-draft navigation channel of the Columbia River, Kalama handled more than 10 mmt of grain and animal feed exports in 2017. More than 99 percent of agricultural exports through New Orleans and Kalama moved in bulk vessels. Another PNW port—the Port of Tacoma, located in the Puget Sound region of Washington state— ranked third for total waterborne agricultural

[1] The data are not considered official trade data, as only the waterborne portions of the trade are provided.
[2] Includes New Orleans, South Louisiana, St. Rose, Destrehan, Baton Rouge, Avondale, and Gramercy. Ports situated along the Mississippi River from Baton Rouge to Myrtle Grove, LA, are often referred to as "New Orleans" or the "New Orleans Port Region."

exports in 2017. The Port moved nearly 7.5 mmt of agricultural exports. Grain products, soybeans, and animal feed accounted for about 80 percent of the port's agricultural exports.

Different from the Gulf seaports, the agricultural cargos shipped through Los Angeles, Long Beach, and even Tacoma are highly containerized commodities.[3] The large population base and extensive transportation network in California attract a significant percentage of consumer import products, which are almost exclusively moved in containers. These imports leave a pool of empty containers for the export market. West Coast ports also provide direct access to some of the United States' largest export markets in Eastern Asian countries.

Tables 2 and 3 show the top five U.S. ports for exports and imports of agricultural products in 2017, respectively. These tables show that a variety of U.S. regions support U.S. agricultural trade and help meet domestic and global demand. Globally, the United States is the top supplier of grain and oilseeds; and these products are among the top agricultural commodities exported from each of the ports listed. Major import commodities include beverages (both alcoholic and non-alcoholic), wine, meat, fruit, and grocery items (Table 3). While the Gulf and Pacific Northwest ports operate mostly bulk grain shipments, agricultural trade through major seaports on the East and Southwest coasts are mostly high-valued containerized products.

Table 2: Top 5 U.S. Export Ports Moving Waterborne Agricultural Trades

Rank	U.S. Ports	Metric Tons	% Containerized	% Refrigerated	Top Export Commodities	Top Trade Partners
1	New Orleans Port Region	70,584,163	1%	1%	Soybeans, grain products, bulk grains	China, Japan, Mexico
2	Kalama	10,125,680	0%	1%	Bulk grains, soybeans, grain products	China, Japan, Korea
3	Tacoma	7,480,590	41%	15%	Grain products, soybeans, animal feed	China, Japan, Korea
4	Los Angeles	6,665,401	99%	14%	Animal feed, soybeans, cotton	China, Taiwan, Japan
5	Seattle	5,670,057	42%	19%	Soybeans, grain products, animal feed	China, Japan, Korea

Source: 2017 PIERS

Table 3: Top 5 U.S. Import Ports Moving Waterborne Agricultural Trades

Rank	U.S. Ports	Metric Tons	% Containerized	% Refrigerated	Top Import Commodities	Top Trade Partners
1	New York	8,829,822	90%	23%	Non-alcoholic beverages, wine, beer	Italy, China, France
2	Philadelphia	3,519,151	61%	49%	Wine, meat, fruit	Canada, Chile, Australia
3	Los Angeles	2,595,601	96%	38%	Grocery items, fruit, rice	Thailand, China, Chile
4	Savannah	2,395,747	51%	33%	Sugar, palm oil, coffee	Indonesia, Mexico, Peru
5	Long Beach	2,384,484	98%	33%	Non-alcoholic beverages, wine, fruit	China, New Zealand, Chile

Source: 2017 PIERS

The top U.S. agricultural import ports are concentrated in the most populated regions, the Northeast and Southwest. The top two import ports, New York/New Jersey and Philadelphia, handled over a quarter of the total U.S. waterborne agricultural imports from a variety of origins including Europe, Eastern Asia, South America, and Australia. California seaports transported 15 percent of the imports, most of which came from Eastern Asian, South American and southwestern Pacific countries (see Table 3).

Conclusion

The agricultural community uses ocean transportation networks extensively to serve its global customers. The *Profiles of Top U.S. Agricultural Ports* provides an updated view of the top 20 U.S. ocean ports moving U.S. agricultural export and import traffic, along with shipping lines used, and destination and origin countries.

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[3] Since 2015, Tacoma and Seattle formed the Northwest Seaports Alliance: https://www.nwseaportalliance.com/#/maps/overview

Grain Transportation Indicators

Table 1

Grain Transport Cost Indicators[1]

	Truck	Rail		Barge	Ocean	
For the week ending		Unit Train	Shuttle		Gulf	Pacific
09/11/19	199	n/a	206	218	235	213
09/04/19	200	n/a	208	244	231	207

[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

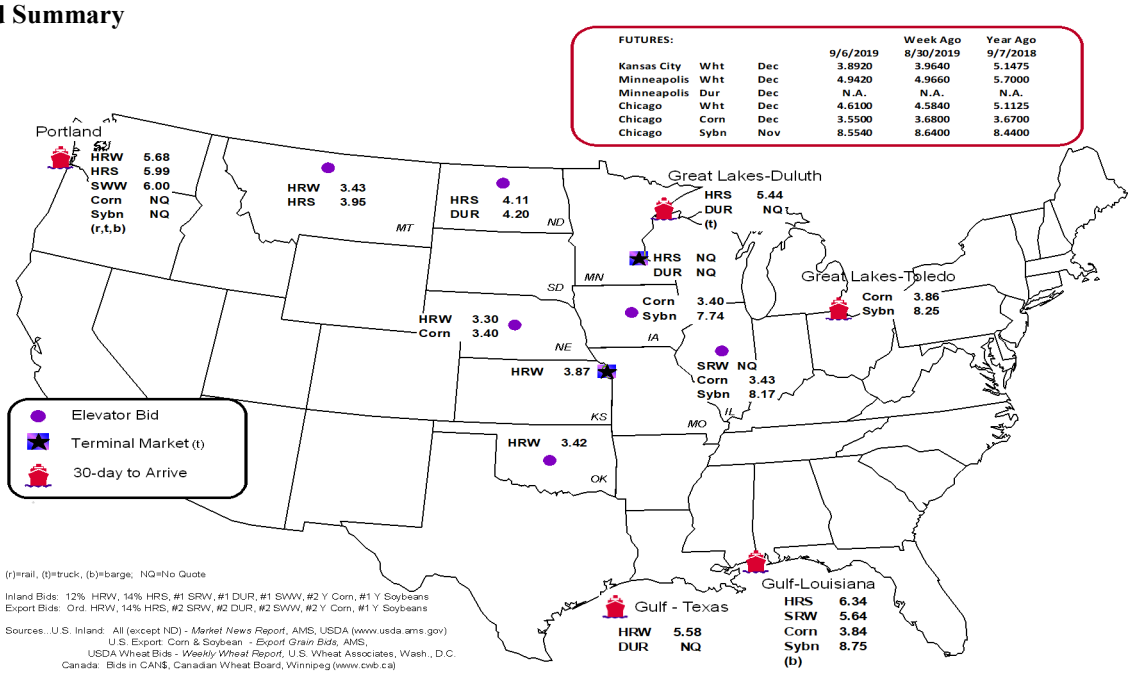
Market Update: U.S. Origins to Export Position Price Spreads ($/bushel)

Commodity	Origin--Destination	9/6/2019	8/30/2019
Corn	IL--Gulf	-0.41	-0.40
Corn	NE--Gulf	-0.44	-0.44
Soybean	IA--Gulf	-1.01	-1.19
HRW	KS--Gulf	-1.71	-1.71
HRS	ND--Portland	-1.88	-2.00

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]
9/04/2019[p]	466	764	4,697	195	6,122	8/31/2019	2,858
8/28/2019[r]	890	798	4,057	361	6,106	8/24/2019	2,239
2019 YTD[r]	33,735	40,466	180,196	13,092	267,489	2019 YTD	85,281
2018 YTD[r]	15,035	37,004	234,395	14,381	300,815	2018 YTD	83,391
2019 YTD as % of 2018 YTD	224	109	77	91	89	% change YTD	102
Last 4 weeks as % of 2018[2]	100	141	76	186	86	Last 4wks % 2018	104
Last 4 weeks as % of 4-year avg.[2]	113	71	92	159	92	Last 4wks % 4 yr	128
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.

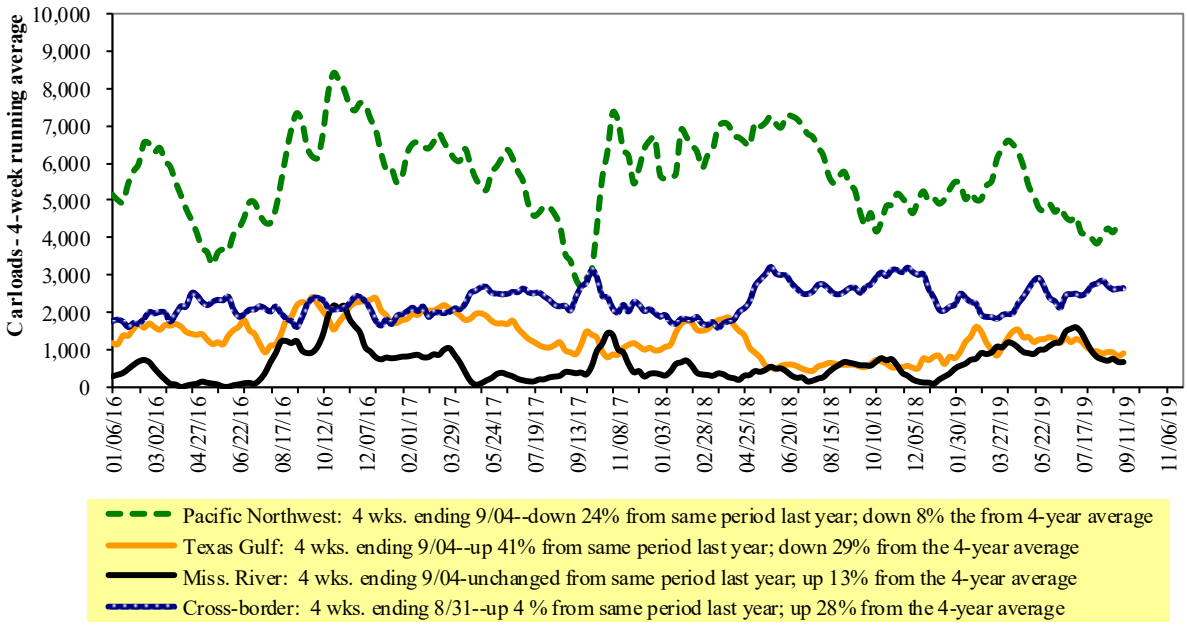
[3] Cross-border weekly data is approximately 15 percent below the Association of American Railroads' reported weekly carloads received by Mexican railroads to reflect switching between KCSM and Grupo Mexico.

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	
8/31/2019	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,230	2,388	11,970	1,147	5,325	22,060	3,072	4,926
This week last year	1,485	2,342	12,110	746	6,035	22,718	5,031	4,867
2019 YTD	64,097	99,037	388,774	39,294	179,977	771,179	144,738	154,205
2018 YTD	67,373	89,910	436,657	33,287	183,923	811,150	134,516	163,119
2019 YTD as % of 2018 YTD	95	110	89	118	98	95	108	95
Last 4 weeks as % of 2018*	81	102	94	133	88	94	69	94
Last 4 weeks as % of 3-yr avg.**	98	102	99	138	85	97	81	95
Total 2018	98,978	133,275	635,458	48,638	267,713	1,184,062	211,803	244,697

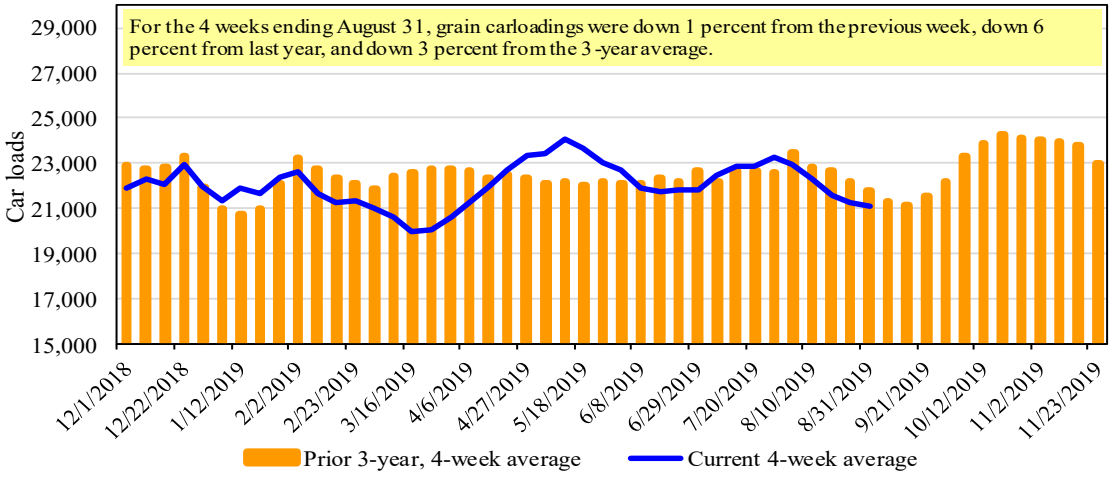
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

**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							
9/5/2019		Sep-19	Sep-18	Oct-19	Oct-18	Nov-19	Nov-18	Dec-19	Dec-18
BNSF[3]	COT grain units	no bid	0	no bid	0	no bid	0	no bid	0
	COT grain single-car[5]	0	183	0	144	0	162	0	123
UP[4]	GCAS/Region 1	no offer	no offer	no offer	no offer	no offer	no offer	n/a	n/a
	GCAS/Region 2	no offer	no offer	no bid	no offer	no bid	10	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.

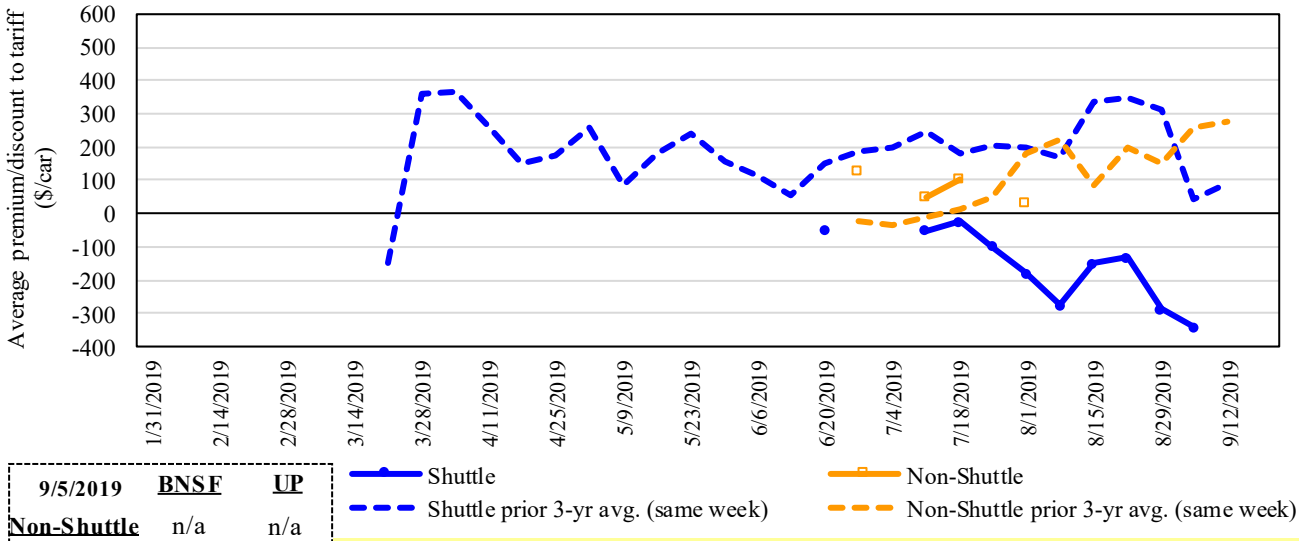
Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

[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 September 2019, Secondary Market

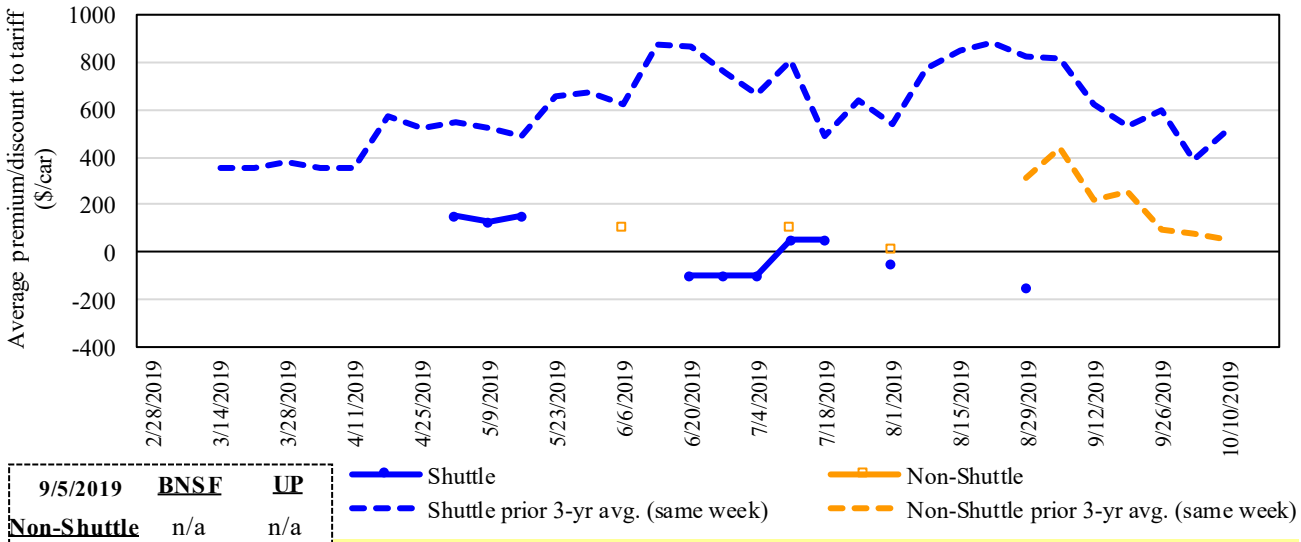


9/5/2019	BNSF	UP
Non-Shuttle	n/a	n/a
Shuttle	-$233	-$450

There were no Non-Shuttle bids/offers this week.
Average Shuttle bids/offers fell $54 this week and are $317 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 October 2019, Secondary Market



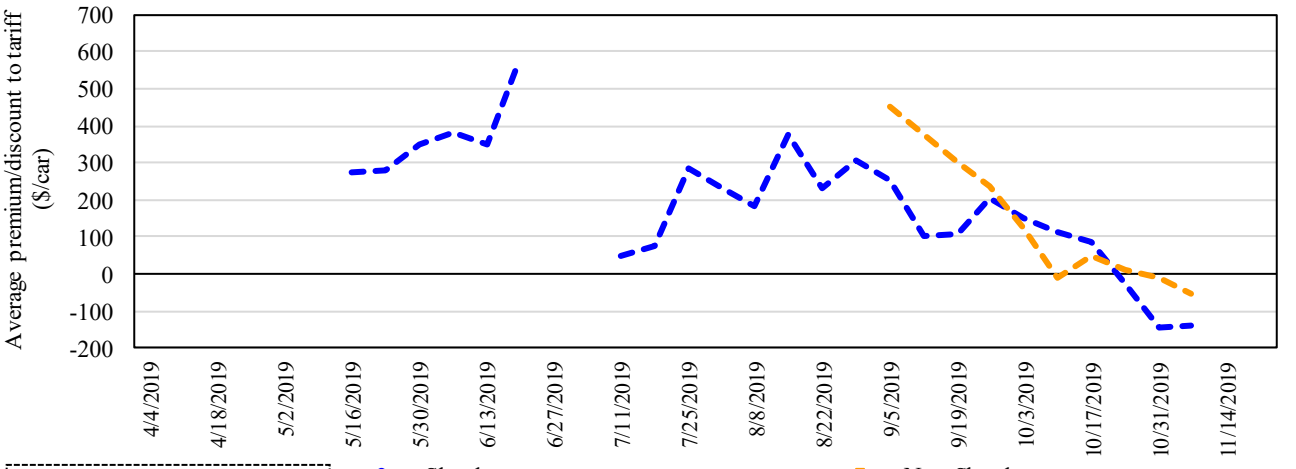
9/5/2019	BNSF	UP
Non-Shuttle	n/a	n/a
Shuttle	n/a	n/a

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

Figure 6

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



9/5/2019	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: 9/5/2019	Delivery period					
		Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20
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**	**(233)**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	105	n/a	n/a	n/a	n/a	n/a
	Change from same week 2018	(96)	n/a	n/a	n/a	n/a	n/a
	UP-Pool	**(450)**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	(212)	n/a	n/a	n/a	n/a	n/a
	Change from same week 2018	(350)	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]

September, 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	$96	$40.51	$1.10	0
	Grand Forks, ND	Duluth-Superior, MN	$4,333	$0	$43.03	$1.17	2
	Wichita, KS	Los Angeles, CA	$7,240	$0	$71.90	$1.96	1
	Wichita, KS	New Orleans, LA	$4,525	$169	$46.61	$1.27	-1
	Sioux Falls, SD	Galveston-Houston, TX	$6,976	$0	$69.28	$1.89	1
	Northwest KS	Galveston-Houston, TX	$4,801	$185	$49.52	$1.35	-1
	Amarillo, TX	Los Angeles, CA	$5,121	$258	$53.41	$1.45	-1
Corn	Champaign-Urbana, IL	New Orleans, LA	$3,800	$191	$39.63	$1.01	-4
	Toledo, OH	Raleigh, NC	$6,581	$0	$65.35	$1.66	4
	Des Moines, IA	Davenport, IA	$2,114	$40	$21.39	$0.54	-7
	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	$119	$37.53	$0.95	1
	Des Moines, IA	Los Angeles, CA	$5,520	$346	$58.26	$1.48	2
Soybeans	Minneapolis, MN	New Orleans, LA	$3,631	$186	$37.91	$1.03	-13
	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	$191	$47.03	$1.28	-5
Shuttle Train							
Wheat	Great Falls, MT	Portland, OR	$4,143	$0	$41.14	$1.12	2
	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	$5,801	$0	$57.61	$1.57	1
	Grand Forks, ND	Galveston-Houston, TX	$6,121	$0	$60.78	$1.65	1
	Northwest KS	Portland, OR	$6,012	$304	$62.72	$1.71	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	$191	$38.84	$0.99	-1
	Lincoln, NE	Galveston-Houston, TX	$3,880	$0	$38.53	$0.98	5
	Des Moines, IA	Amarillo, TX	$4,060	$150	$41.80	$1.06	1
	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	0
	Minneapolis, MN	Portland, OR	$5,800	$0	$57.60	$1.57	0
	Fargo, ND	Tacoma, WA	$5,650	$0	$56.11	$1.53	0
	Council Bluffs, IA	New Orleans, LA	$4,775	$220	$49.61	$1.35	-1
	Toledo, OH	Huntsville, AL	$4,634	$0	$46.02	$1.25	6
	Grand Island, NE	Portland, OR	$5,710	$311	$59.79	$1.63	-1

[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: September, 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	$7,509	$0	$76.72	$2.09	3
	OK	Cuautitlan, EM	$6,775	$132	$70.58	$1.92	0
	KS	Guadalajara, JA	$7,534	$594	$83.04	$2.26	5
	TX	Salinas Victoria, NL	$4,329	$81	$45.06	$1.23	0
Corn	IA	Guadalajara, JA	$8,828	$502	$95.33	$2.42	8
	SD	Celaya, GJ	$8,140	$0	$83.17	$2.11	6
	NE	Queretaro, QA	$8,207	$278	$86.69	$2.20	2
	SD	Salinas Victoria, NL	$6,905	$0	$70.55	$1.79	2
	MO	Tlalnepantla, EM	$7,573	$271	$80.15	$2.03	2
	SD	Torreon, CU	$7,690	$0	$78.57	$1.99	5
Soybeans	MO	Bojay (Tula), HG	$8,497	$475	$91.67	$2.49	5
	NE	Guadalajara, JA	$9,122	$497	$98.27	$2.67	5
	IA	El Castillo, JA	$9,390	$0	$95.94	$2.61	3
	KS	Torreon, CU	$7,914	$344	$84.37	$2.29	5
Sorghum	NE	Celaya, GJ	$7,787	$446	$84.12	$2.13	7
	KS	Queretaro, QA	$8,000	$165	$83.43	$2.12	2
	NE	Salinas Victoria, NL	$6,633	$133	$69.12	$1.75	2
	NE	Torreon, CU	$7,172	$316	$76.51	$1.94	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

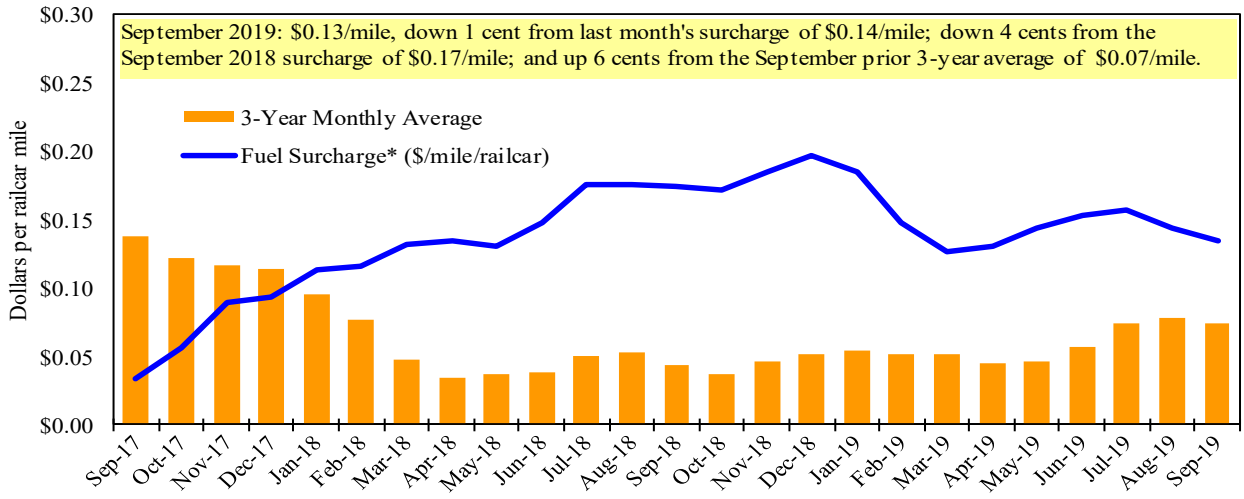
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

[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.

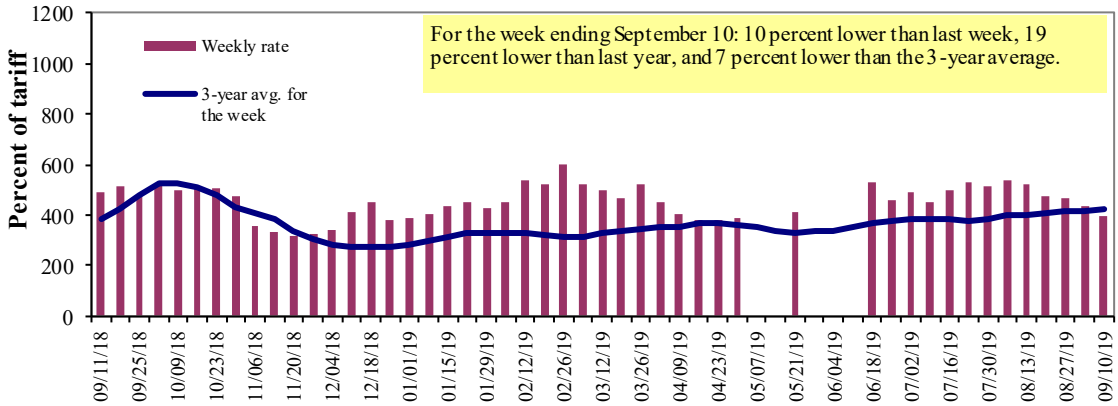
**CSX strike price changed from $2.00/gal. to $3.75/gal. starting January 1, 2015.

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]	9/10/2019	382	400	393	367	332	332	358
	9/3/2019	417	428	439	346	341	341	360
$/ton	9/10/2019	23.65	21.28	18.24	14.64	15.57	13.41	11.24
	9/3/2019	25.81	22.77	20.37	13.81	15.99	13.78	11.30
Current week % change from the same week:								
	Last year	-25	-18	-19	-8	-28	-28	-8
	3-year avg. [2]	-18	-7	-7	18	-15	-15	19
Rate[1]	October	420	430	423	383	408	408	358
	December	-	-	362	273	295	295	258

[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.

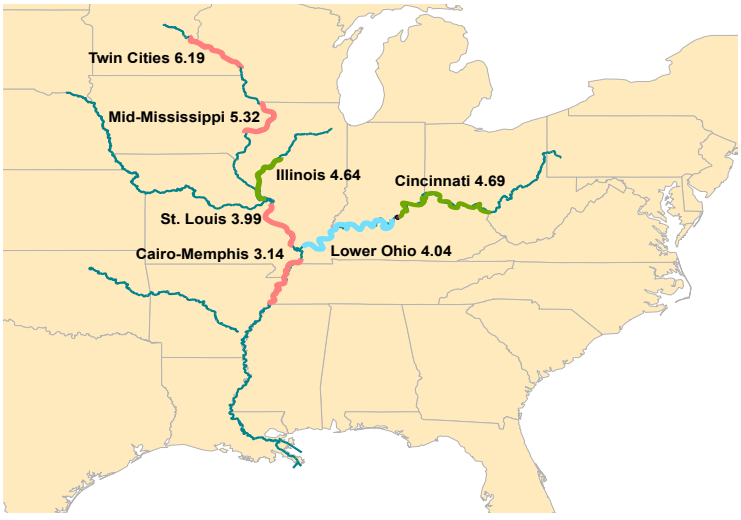
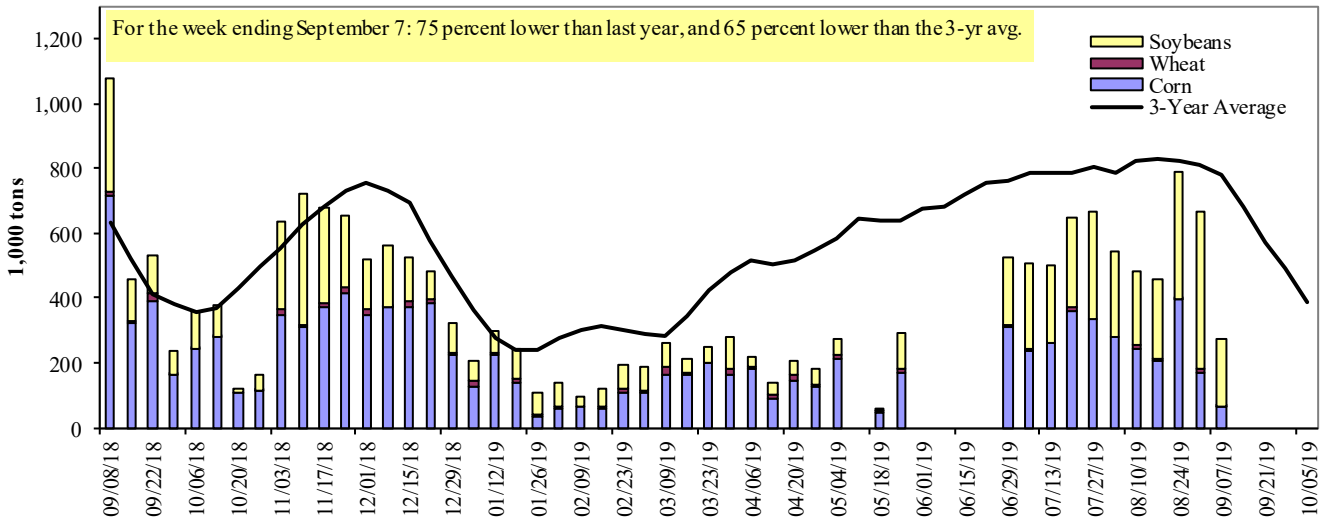


Figure 10

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 09/07/2019	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	110	19	235	2	366
Winfield, MO (L25)	36	2	112	0	149
Alton, IL (L26)	58	2	210	3	272
Granite City, IL (L27)	64	2	208	3	277
Illinois River (LAGRANGE)	17	0	108	0	125
Ohio River (OLMSTED)	2	18	56	0	76
Arkansas River (L1)	0	0	4	0	4
Weekly total - 2019	66	19	269	3	357
Weekly total - 2018	833	50	404	2	1,288
2019 YTD[1]	8,751	1,211	8,200	122	18,284
2018 YTD[1]	17,330	1,315	8,781	88	27,514
2019 as % of 2018 YTD	50	92	93	139	66
Last 4 weeks as % of 2018[2]	36	53	113	385	64
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.

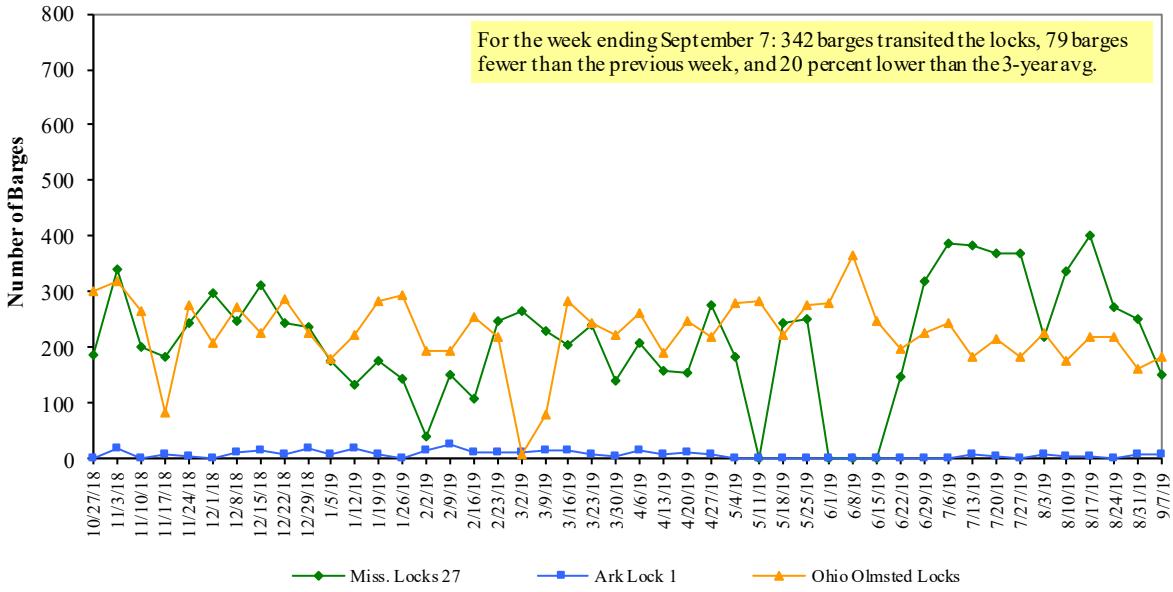
[2] As a percent of same period in 2018.

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

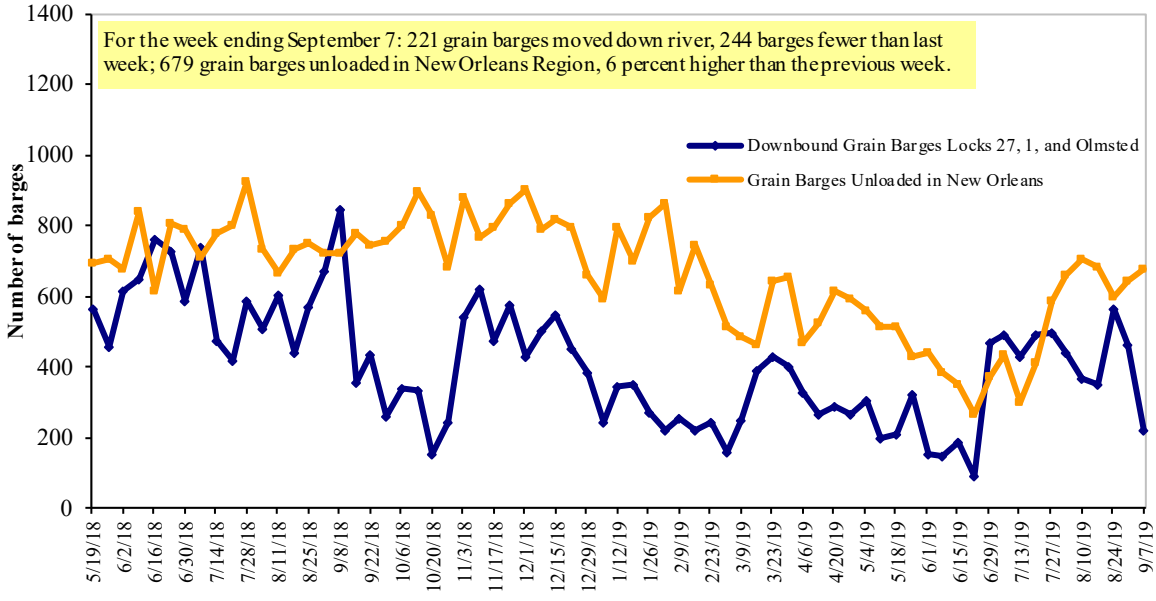
Upbound Empty Barges Transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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 9/9/2019 (US $/gallon)

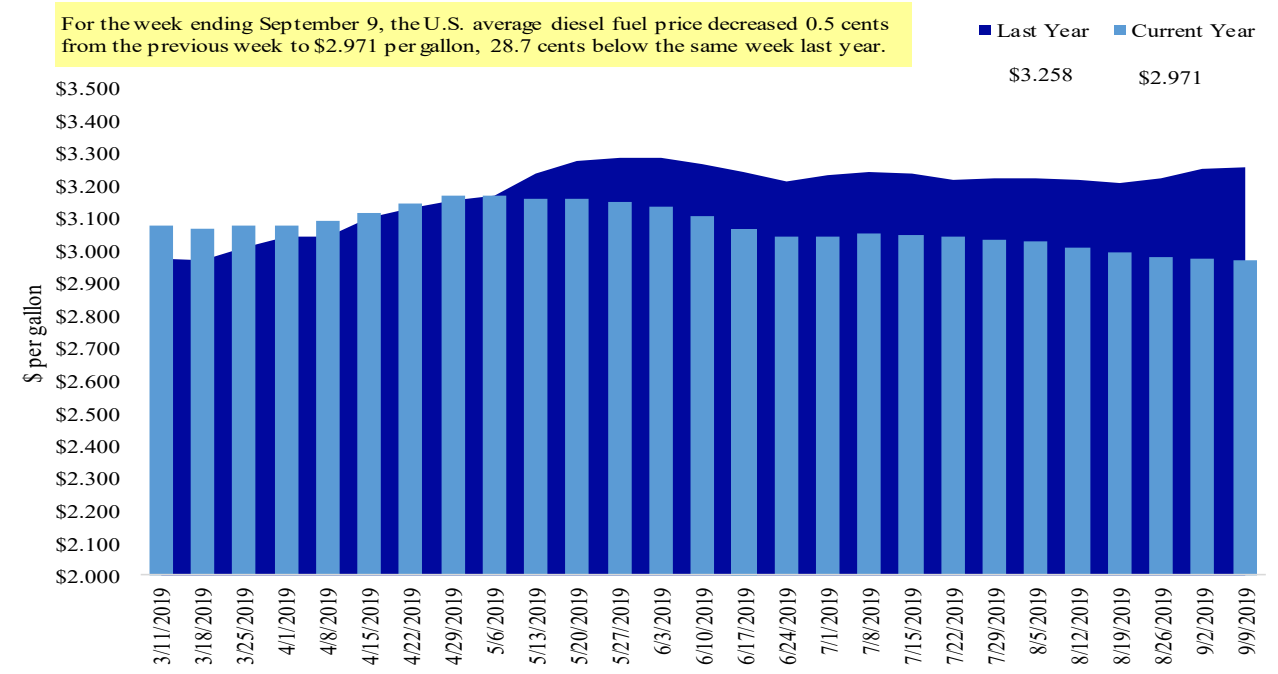
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	2.992	-0.008	-0.254
	New England	3.022	-0.005	-0.233
	Central Atlantic	3.161	-0.017	-0.246
	Lower Atlantic	2.871	-0.003	-0.260
II	Midwest	2.864	-0.010	-0.330
III	Gulf Coast	2.745	0.005	-0.294
IV	Rocky Mountain	2.933	0.009	-0.434
V	West Coast	3.548	-0.007	-0.198
	West Coast less California	3.131	-0.008	-0.334
	California	3.878	-0.007	-0.091
Total	U.S.	2.971	-0.005	-0.287

[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]									
8/29/2019	1,379	658	1,670	889	340	4,937	1,011	2,594	8,541
This week year ago	1,415	552	1,313	943	173	4,396	3,362	2,659	10,417
Cumulative exports-marketing year[2]									
2018/19 YTD	2,926	786	1,501	1,097	148	6,459	48,924	46,189	101,572
2017/18 YTD	1,287	640	1,527	1,434	67	4,955	57,209	56,108	118,272
YTD 2018/19 as % of 2017/18	227	123	98	77	222	130	86	82	86
Last 4 wks as % of same period 2017/18	103	124	123	101	183	114	55	155	105
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 8/29/2019	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	3,136	15,753	15,553	1	13,691
Japan	634	12,835	11,991	7	11,247
Korea	65	3,695	5,982	(38)	4,754
Colombia	83	4,690	4,907	(4)	4,678
Peru	0	1,992	3,293	(40)	2,975
Top 5 Importers	**3,918**	**38,964**	**41,725**	**(7)**	**37,344**
Total US corn export sales	**5,958**	**49,935**	**60,572**	**(18)**	**53,184**
% of Projected	11%	93%	98%		
Change from prior week[2]	**417**	**(166)**	**30**		
Top 5 importers' share of U.S. corn export sales	66%	78%	69%		70%
USDA forecast, August 2019	**54,707**	**53,435**	**62,036**	**(14)**	
Corn Use for Ethanol USDA forecast, August 2019	**139,065**	**137,795**	**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 8/29/2019	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	260	14,179	27,861	(49)	31,228
Mexico	1,155	5,014	4,421	13	3,716
Indonesia	55	2,554	2,779	(8)	2,250
Japan	207	2,666	2,376	12	2,145
Netherlands	0	2,111	2,544	(17)	2,209
Top 5 importers	**1,678**	**26,523**	**39,981**	**(34)**	**41,549**
Total US soybean export sales	**6,403**	**48,783**	**58,766**	**(17)**	**55,113**
% of Projected	13%	105%	101%		
Change from prior week[2]	**788**	**69**	**(30)**		
Top 5 importers' share of U.S. soybean export sales	26%	54%	68%		**75%**
USDA forecast, August 2019	**48,365**	**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 8/29/2019	Total Commitments[2]		% change current MY from last MY	Exports[3] 3-yr avg 2016-2018
	2019/20 Current MY	2018/19 Last MY		
	- 1,000 mt -			- 1,000 mt -
Philippines	1,338	1,519	(12)	3,047
Mexico	1,611	1,152	40	3,034
Japan	1,104	1,118	(1)	2,695
Nigeria	710	416	71	1,564
Indonesia	234	306	(24)	1,381
Korea	651	801	(19)	1,355
Taiwan	557	389	43	1,164
Egypt	42	0	n/a	821
Thailand	371	454	(18)	747
Iraq	262	305	(14)	574
Top 10 importers	**6,880**	**6,460**	7	**16,382**
Total US wheat export sales	**11,395**	**9,351**	**22**	**24,388**
% of Projected	43%	37%		
Change from prior week[2]	**312**	**380**		
Top 10 importers' share of U.S. wheat export sales	60%	69%		67%
USDA forecast, August 2019	**26,567**	**25,504**	**4**	

(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 09/05/19	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	161	281	57	9,352	8,926	105	86	88	13,315
Corn	0	0	n/a	6,858	15,190	45	0	0	20,024
Soybeans	139	279	50	7,189	6,326	114	195	202	7,719
Total	**300**	**560**	**54**	**23,400**	**30,442**	**77**	**74**	**75**	**41,058**
Mississippi Gulf									
Wheat	105	126	83	3,539	2,803	126	163	123	3,896
Corn	438	153	287	16,164	24,570	66	54	61	33,735
Soybeans	665	776	86	17,555	16,541	106	129	104	28,124
Total	**1,208**	**1,055**	**114**	**37,259**	**43,914**	**85**	**91**	**86**	**65,755**
Texas Gulf									
Wheat	113	120	94	4,928	2,239	220	254	90	3,198
Corn	0	42	0	531	566	94	166	67	730
Soybeans	0	0	n/a	2	69	2	0	0	69
Total	**113**	**161**	**70**	**5,461**	**2,873**	**190**	**227**	**84**	**3,997**
Interior									
Wheat	13	46	28	1,328	1,108	120	76	80	1,614
Corn	141	157	90	5,302	6,037	88	90	84	8,650
Soybeans	125	162	77	4,755	4,708	101	103	144	6,729
Total	**279**	**365**	**76**	**11,385**	**11,853**	**96**	**93**	**102**	**16,993**
Great Lakes									
Wheat	32	14	232	706	509	139	156	139	894
Corn	0	0	n/a	0	324	0	0	0	404
Soybeans	22	24	92	445	512	87	24	46	1,192
Total	**55**	**38**	**143**	**1,150**	**1,345**	**86**	**71**	**77**	**2,491**
Atlantic									
Wheat	1	1	100	35	67	52	891	104	69
Corn	0	0	100	94	75	127	38	42	138
Soybeans	1	117	1	983	1,398	70	546	412	2,047
Total	**2**	**117**	**2**	**1,113**	**1,540**	**72**	**434**	**334**	**2,253**
U.S. total from ports*									
Wheat	424	588	72	19,888	15,654	127	111	95	22,986
Corn	580	351	165	28,950	46,761	62	47	48	63,682
Soybeans	954	1,358	70	30,929	29,554	105	132	123	45,879
Total	**1,957**	**2,297**	**85**	**79,768**	**91,968**	**87**	**90**	**86**	**132,547**

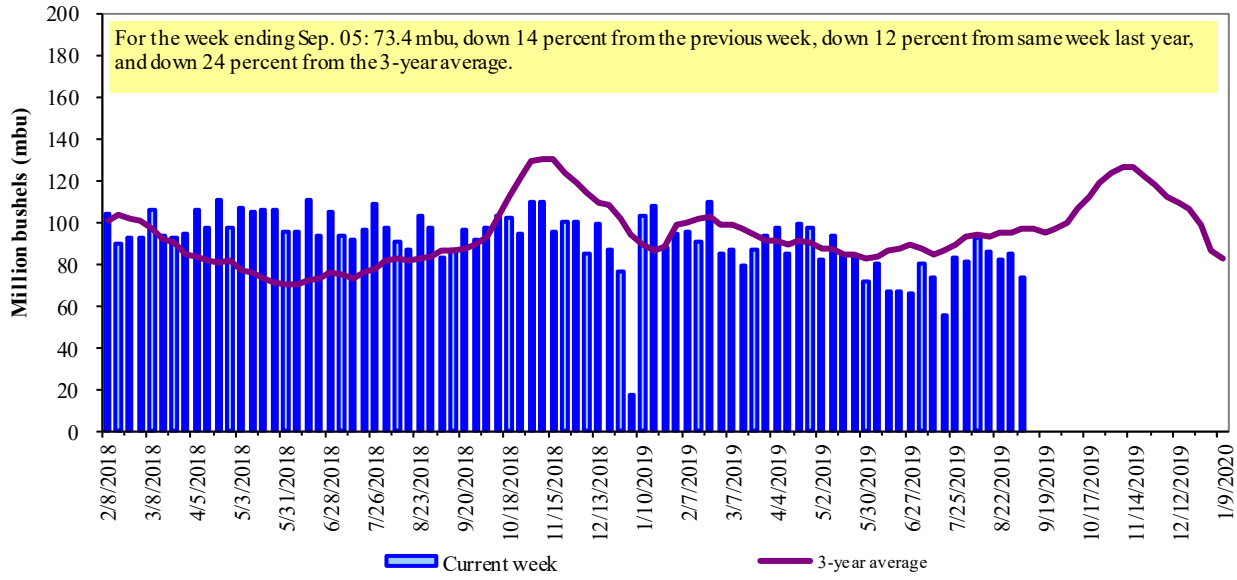
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

Source: USDA Federal Grain Inspection Service (www.gipsa.usda.gov/fgis); YTD= year-to-date; n/a = not applicable, not available or no change

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

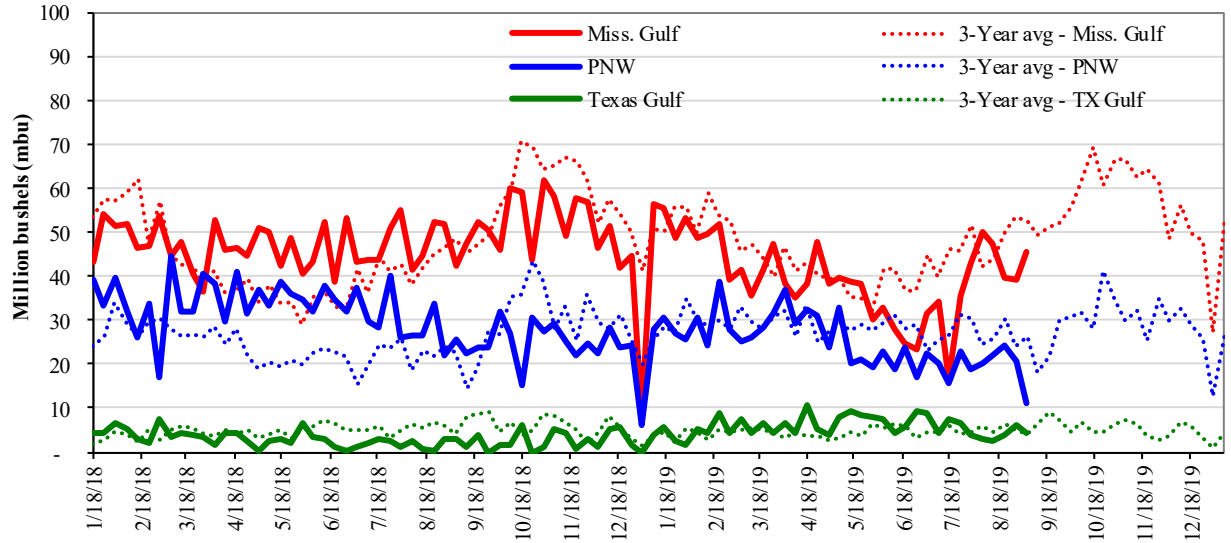
U.S. grain inspected for export (wheat, corn, and soybeans)



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 09/05/19 inspections (mbu):	
Mississippi Gulf:	45.5
PNW:	11.0
Texas Gulf:	4.1

Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last Week:	up 16	down 31	up 10	down 46
Last Year (same week):	up 8	up 40	up 10	down 57
3-yr avg. (4-wk. mov. Avg):	down 9	down 17	down 10	down 59

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

Table 17

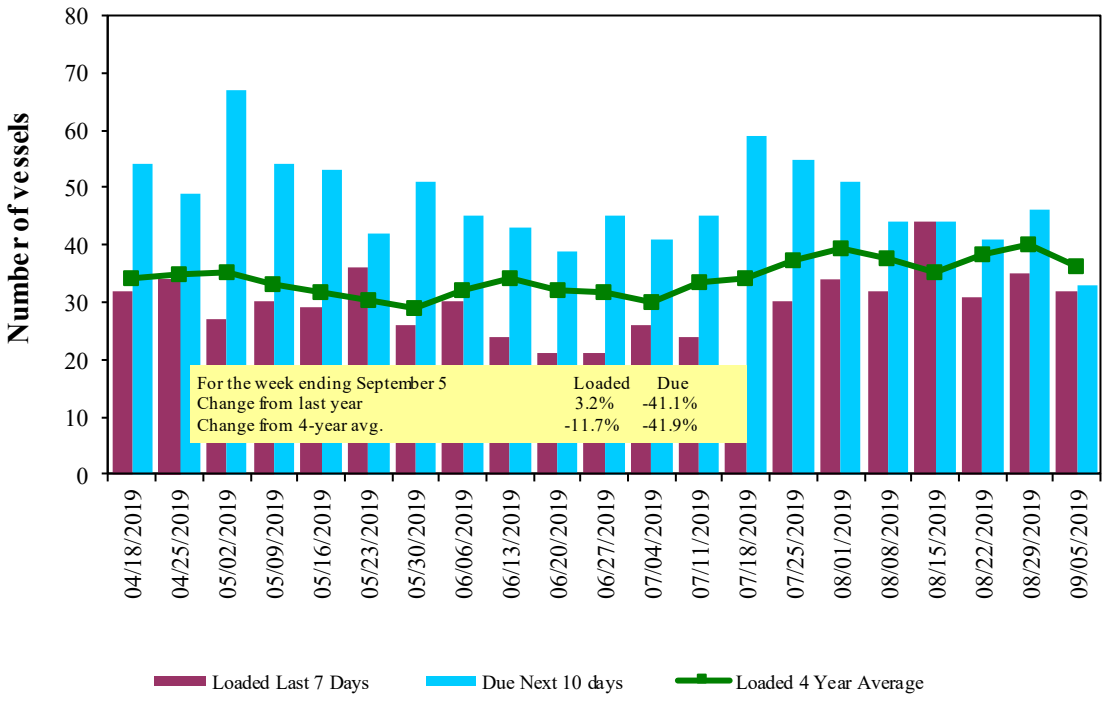
Weekly Port Region Grain Ocean Vessel Activity (number of vessels)

	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
9/5/2019	38	32	33	9
8/29/2019	33	35	46	10
2018 range	(23..88)	(24..41)	(38..67)	(4..30)
2018 avg.	40	34	54	17

Source: Transportation & Marketing Programs/AMS/USDA

Figure 16

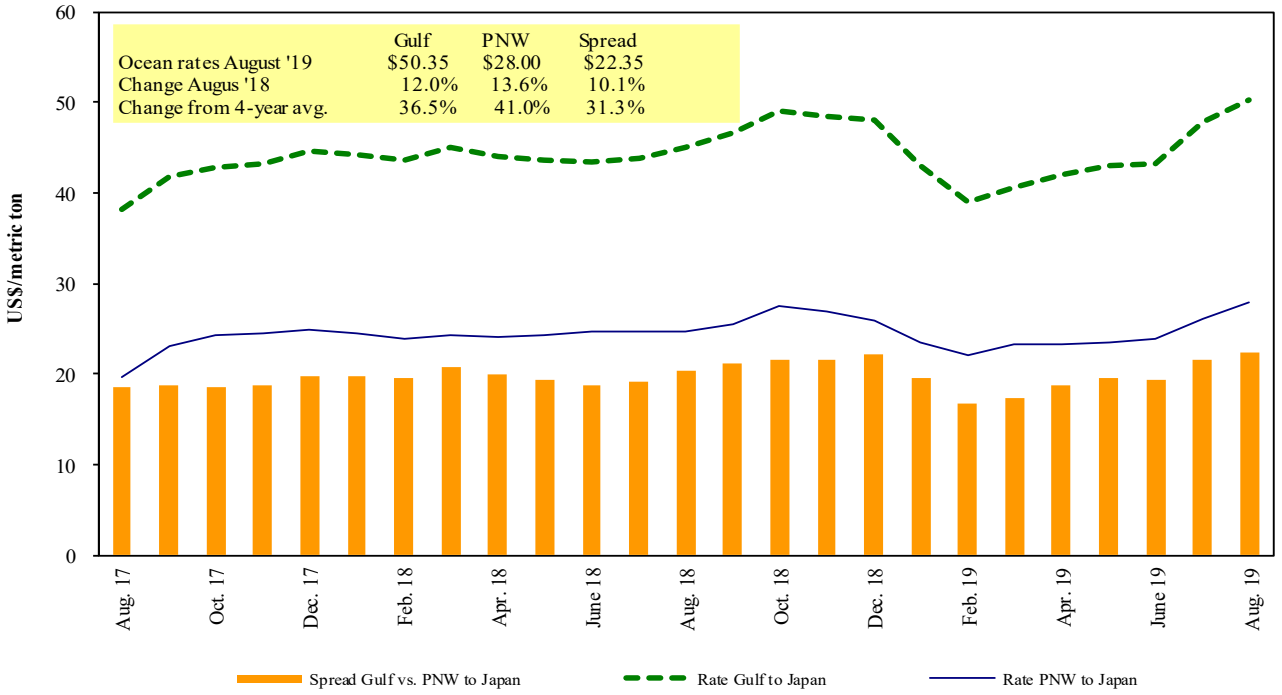
U.S. Gulf Vessel Loading Activity



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 09/07/2019

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	Pt Sudan	Sorghum	Sep 20/30	24,960	58.15*
U.S. Gulf	Djibouti	Wheat	Aug 19/29	20,000	85.66*
U.S. Gulf	Somaliland	Sorghum	Sep 20/30	32,240	61.75*
PNW	Yemen	Wheat	Sep 5/15	35,380	59.59*
PNW	Yemen	Wheat	Sep 20/30	35,000	62.19*
Brazil	China	Heavy Grain	Jun 10/20	65,000	33.00
Brazil	China	Heavy Grain	Apr 20/May 5	63,000	33.00

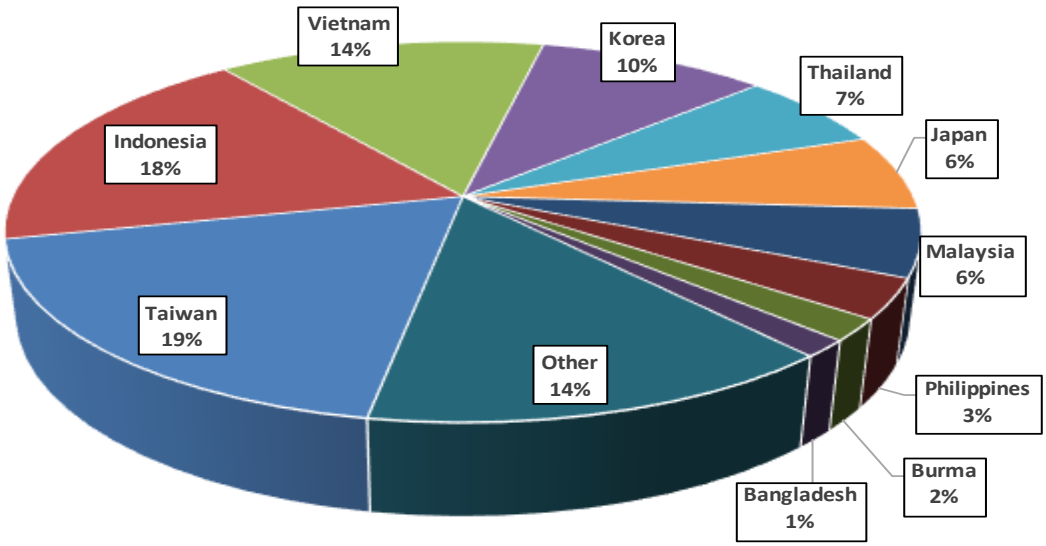
Rates shown are per metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicated; op = option

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

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

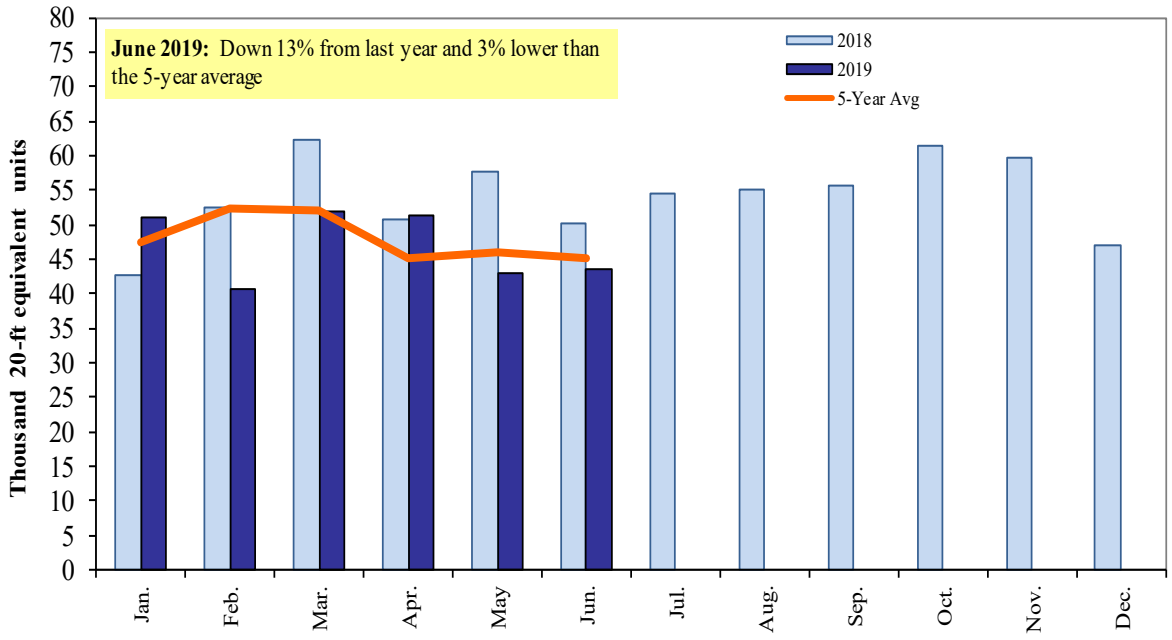
n 2018, containers were used to transport 8 percent of total U.S. waterborne grain exports. Approximately 55 percent of U.S. waterborne grain exports in 2018 went to Asia, of which 13 percent were moved in containers. Approximately 94 percent of U.S. waterborne containerized grain exports were destined for Asia.

Figure 18
Top 10 Destination Markets for U.S. Containerized Grain Exports, Jan-Jun 2019



Source: USDA/Agricultural Marketing Service/Transportation Services Division analysis of 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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Preferred citation: U.S. Dept. of Agriculture, Agricultural Marketing Service. *Grain Transportation Report.* September 12, 2019. Web: **http://dx.doi.org/10.9752/TS056.09-12-2019**