United States Department of Agriculture

Grain Transportation Report

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

Contact Us

October 10, 2019

Contents

The next release is October 17, 2019

WEEKLY HIGHLIGHTS

Mississippi Gulf Grain Inspections Continue to Increase

For the week ending October 3, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions reached 2 million metric tons (mmt). Inspections were down 1 percent from the previous week, down 22 percent from last year, and 27 percent below the 3-year average. Mississippi Gulf grain inspections continued to increase, rising 13 percent from the previous week. Inspections in the Pacific Northwest (PNW), however, decreased 30 percent primarily because of lower corn inspections. Overall, inspections of wheat dropped 23 percent from week to week, but inspections of corn and soybeans increased 11 and 5 percent.

Diesel Prices Start a Downward Trend

In the past 2 weeks, **diesel fuel prices** decreased 3.4 cents to $3.047 per gallon. This drop in prices came after a 2-week increase of 11 cents per gallon. Crude oil prices followed a similar pattern. The U.S. Department of Energy's Energy Information Administration reported, "Oil spot prices began September at $61 per barrel and increased to $68 per barrel after attacks on major Saudi Arabian oil infrastructure disrupted the country's crude oil production. However, spot oil prices have subsequently fallen, reaching $58 per barrel on October 4, as Saudi Arabia restored the shut-in production and concerns about oil demand based on the condition of the global economy rose."

New Regulatory Announcements from the STB on Demurrage Rules and Charges

Earlier this week, the Surface Transportation Board (STB) issued three decisions on demurrage and accessorial rules and charges. This follows an earlier 2-day public hearing held last May. The first is Ex Parte (EP 757), in which STB issued a proposed policy statement on demurrage and accessorial rules and charges. The statement details the principles the Board would consider in evaluating the reasonableness of those items. In the second docket (EP 760), STB proposed to clarify the rules surrounding demurrage and accessorial exemptions, as well as to remove some of the exemptions for agricultural products. Last, in EP 759, the Board proposed rule changes to define the minimum information required on Class I railroad invoices. The Board's stated goal in EP 759 is to enhance the transparency and accuracy of demurrage invoicing. Comments in each proceeding are due by November 6, 2019.

Snapshots by Sector

Export Sales

For the week ending September 26, **unshipped balances** of wheat, corn, and soybeans totaled 23.9 mmt. This represents a 35-percent decrease in outstanding sales, compared to the same time last year. Net **corn export sales** reached .563 mmt, up 14 percent from the past week. Net **soybean export sales** were 2.08 mmt, down 50 percent from the previous week. Net weekly **wheat export sales** reached .328 mmt, up 16 percent from the from the previous week.

Rail

U.S. Class I railroads originated 17,936 **grain carloads** during the week ending September 28. This is a 6-percent decrease from the previous week, 18 percent less than last year, and 26 percent lower than the 3-year average.

Average October shuttle **secondary railcar** bids/offers (per car) were $63 above tariff for the week ending October 3. This is $331 more than last week and $8 more than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending October 5, **barge grain movements** totaled 507,298 tons. This is a 10-percent decrease from the previous week and 6 percent less than the same period last year.

For the week ending October 5, 314 grain barges **moved down river**. This is 41 fewer barges than the previous week. There were 669 grain barges **unloaded in New Orleans**, 2 percent fewer than the previous week.

Ocean

For the week ending October 3, 35 **ocean-going grain vessels** were loaded in the Gulf—13 percent more than the same period last year. Forty-five vessels are expected to be loaded within the next 10 days (starting October 4). This is 26 percent fewer than the same period last year.

As of October 3, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was $51.25. This is relatively unchanged from the previous week. The rate from PNW to Japan was $28.50 per mt, 1 percent less than the previous week.

Preferred citation: U.S. Dept. of Agriculture, Agricultural Marketing Service. *Grain Transportation Report.* October 10, 2019.
Web: http://dx.doi.org/10.9752/TS056.10-10-2019

Feature Article/Calendar

Lower Grain Production Offsets Higher September Stocks, Likely to Impact Transportation Demand

Grain stocks and storage are important factors behind grain transportation demand. Adequate storage is key to mitigating transportation bottlenecks during harvest and smoothing the demand for grain transportation over the marketing year. All else equal, locations with high grain supplies are those most likely to see increased shipments, as grain moves from areas of supply to destination markets. Similarly, areas with relatively scarce storage face more pressure to ship harvested grain immediately. This article examines fall grain supplies and storage capacity across the country and discusses implications on transportation.

A Look at the National Level

The amount of grain available to move comes from that which is currently held in storage and new-crop harvests. Regarding grain held in storage, U.S. farmers and commercial facilities stored 5.7 billion bushels (bbu) of grain as of September 1, 2019, up 13 percent (+0.6 bbu) from the 3-year average. Notably, soybeans stocks (old crop) were up 108 percent from a year ago.[1]

In addition, ongoing new-crop harvests of corn, soybeans, and grain sorghum boost movable grain supplies. Farmers typically harvest these crops after September 1. As of October 6, 2019, 15 percent of the corn acres had been harvested (12 percentage points behind the 5-year average), and the soybean harvest was 14 percent complete (20 percentage points behind).[2] According to the latest (September) NASS projections, U.S. farmers could harvest 17.8 bbu of corn, soybeans, and grain sorghum for 2019—9-percent lower (-1.7 bbu) than the 3-year average.

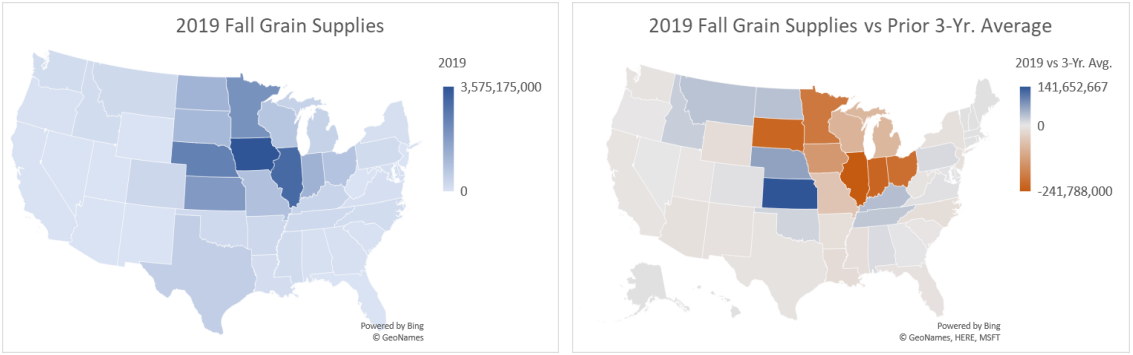
Because the drop in (post-September 1) grain production estimates more than offset the higher (September 1) grain stocks, grain supplies are, on net, lower than past years. More specifically, fall 2019 grain supplies are 23.7 bbu. This is 1.1 bbu (4-percent) lower than the 3-year average. Reduced grain supplies mean less product and, therefore, lower demand for transportation over the course of the marketing year (MY).

In addition, less grain supply could ease bottlenecks during harvest, because there is less competition for limited elevator space. Further allaying possible constraints on storage and transportation this harvest, farmers and commercial facilities continued to add storage capacity from last year (up 1 percent). Looking at the difference between grain supplies (September 1 grain stocks plus post-September 1 grain production) and grain storage shows the "storage deficit" has declined over the years, from -0.8 bbu in 2016 to +1.3 bbu in 2019. Thus, in aggregate, this fall is a story of high stocks, sizeable (but not record) grain production, and ample storage. However, this national-level view masks important geographic differences, as the next section discusses.

A Look at the State Level

With sizeable corn and soybean crops expected in 2019, the Midwest holds much of the Nation's grain supplies (fig. 1, left pane). States with the highest supplies, such as Iowa, Illinois, Nebraska, and Minnesota should see ample demand for truck, rail, and barge service for hauling grain. Perhaps more illustrative is a comparison of 2019 grain supplies to the prior 3-year average across the United States (fig. 1, right pane). This map shows where transportation demand could be higher or lower than average in a particular State. For instance, although grain supplies are high in Illinois (relative to other States, as shown in the left pane), supplies are 0.2 bbu below its recent norm.[3] Conversely, States like Kansas and Nebraska are projected to have grain supplies that are larger than in their recent past. The greater supplies, along with the large rail presence in these States, could mean additional carloads in MY2019.

Figure 1: Fall grain supplies by state, 2019 and 2019 compared with prior 3-year average.



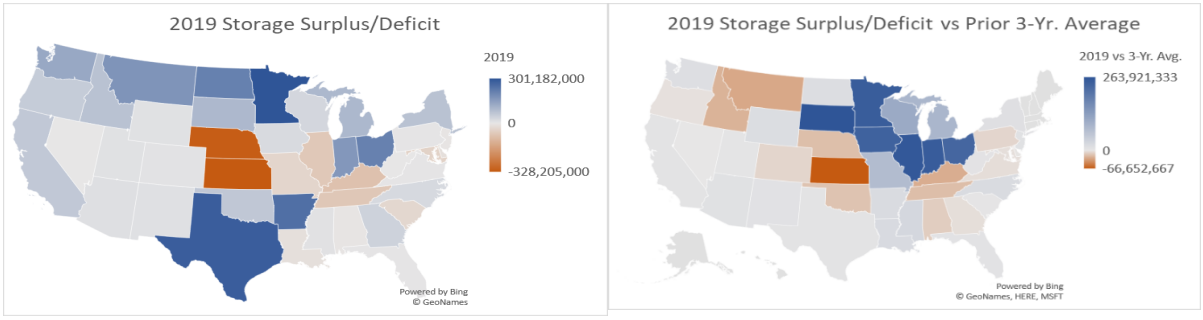
Source: USDA, Agricultural Marketing Service analysis of USDA, National Agricultural Statistics Service data.

[1] USDA-NASS. September 30, 2019. *Grain Stocks*.
[2] USDA-NASS. October 7, 2019. *Crop Progress*.
[3] For reference, this is about 60 thousand railcars or 4 thousand barges.

Next, figure 2 combines grain supplies with grain storage capacity to show where grain storage is relatively scarce or abundant as the 2019 corn and soybean harvests progress. The left pane shows storage surplus and deficit areas for 2019, and the right pane compares 2019 to the prior 3-year average. Kansas and Nebraska could see the largest shortfalls in storage, with supplies exceeding total storage capacity each by 0.3 bbu (fig. 2, left pane). Less storage puts more pressure on the transportation system, since more of the harvested production will need to be brought immediately to market.

As indicated in figure 2 (right pane), the shortage of storage in Kansas and a few surrounding States is a little larger than in past years. Notably, several States—such as Indiana, Illinois, Iowa, Minnesota, Ohio, and South Dakota—have a much higher availability of storage this fall than in their recent past. In fact, storage availability is over 0.2 bbu higher in each of these States than their 3-year average.

Figure 2: Relative storage surplus and deficit by state, 2019 and 2019 compared with prior 3-year average.

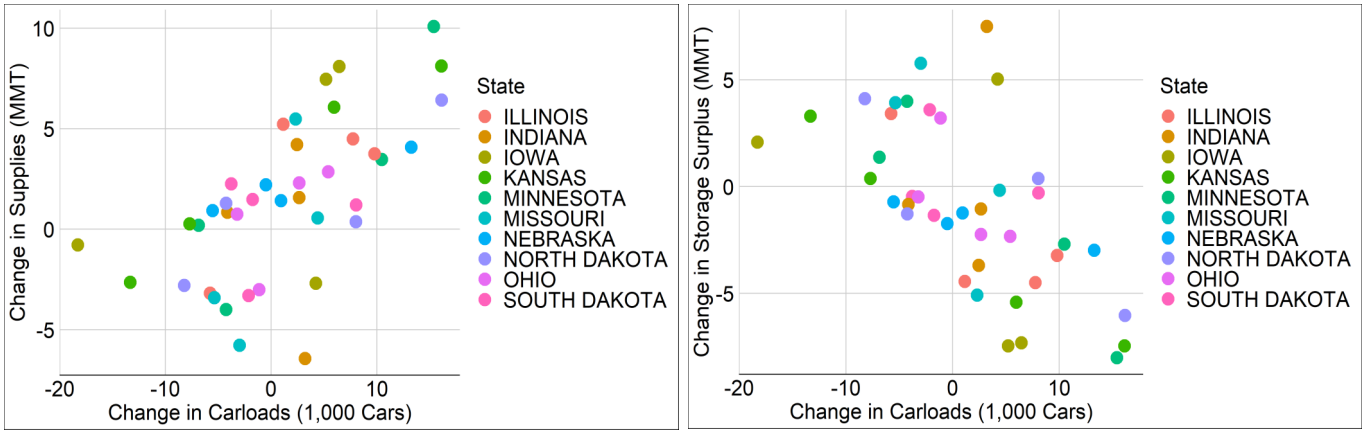


Source: USDA, Agricultural Marketing Service analysis of USDA, National Agricultural Statistics Service data.

Grain Supplies, Storage Availability, and the Demand for Transportation

The Surface Transportation Board's rail service data confirms these relationships and illustrates the importance of grain supplies and storage for rail demand. Figure 3 plots the relationships among grain supplies, storage availability, and 4th quarter grain carloads at the State level. Each point in the plot represents a State and year. Each of the axes show the change from the prior year. The left pane plots the change in grain supplies versus the change in grain rail carloads by State. It shows how differences in supplies (e.g., higher or lower) translate into differences in rail movements. The right pane plots the change in storage availability versus the change in rail carloads by State, showing the relationship between storage abundance (or scarcity) and rail movements.

Figure 3: Comparing changes in grain supplies, storage availability, and grain carloads in the top 10 production States (2014-2018).



Source: USDA, Agricultural Marketing Service analysis of USDA, National Agricultural Statistics Service data and Surface Transportation Board Data.

Both figures confirm the importance of grain supplies for transportation demand. As shown in the left pane of figure 3, higher grain supplies are positively correlated with increased rail volumes. In States where supplies are higher this year than last year, carloadings are likely to be higher as well. The same is true for States with a change in available storage. In those States where storage is scarcer (less of a surplus or more of a deficit), figure 2 confirms those States are likely to see higher rail demand.

PeterA.Caffarelli@usda.gov, *Jesse.Gastelle@usda.gov*

Grain Transportation Indicators

Table 1

Grain transport cost indicators[1]

	Truck	Rail		Barge	Ocean	
For the week ending		Unit train	Shuttle		Gulf	Pacific
10/09/19	204	n/a	228	213	229	202
10/02/19	206	n/a	209	200	230	204

[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); ocean = routes to Japan ($/metric ton); n/a = not available.
USDA, Agricultural Marketing Service.

Table 2

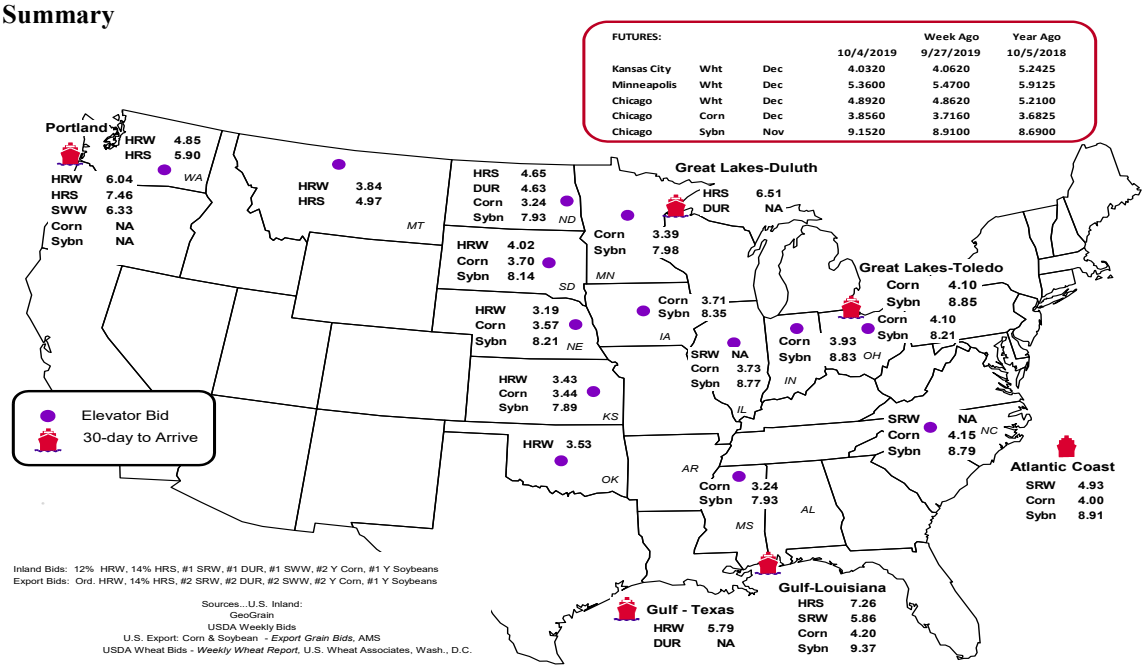
Market Update: U.S. origins to export position price spreads ($/bushel)

Commodity	Origin–destination	10/4/2019	9/27/2019
Corn	IL–Gulf	-0.47	-0.42
Corn	NE–Gulf	-0.63	-0.59
Soybean	IA–Gulf	-1.02	-1.02
HRW	KS–Gulf	-2.36	-2.33
HRS	ND–Portland	-2.81	-2.93

Note: nq = no quote; n/a = not available; HRW = hard red winter wheat; HRS = hard red spring wheat
Source: USDA, Agricultural Marketing Service.

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]
10/02/2019[p]	353	1,134	2,587	271	4,345	9/28/2019	2,410
9/25/2019[r]	667	774	4,223	78	5,742	9/21/2019	2,696
2019 YTD[r]	35,606	43,857	194,350	13,766	287,579	2019 YTD	94,972
2018 YTD[r]	17,415	39,083	251,672	15,604	323,774	2018 YTD	94,084
2019 YTD as % of 2018 YTD	204	112	77	88	89	% change YTD	101
Last 4 weeks as % of 2018[2]	79	158	82	55	87	Last 4wks % 2018	91
Last 4 weeks as % of 4-year avg.[2]	73	62	83	56	76	Last 4wks % 4 yr	95
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 Kansas City Southern de Mexico (KCSM) and Grupo Mexico.

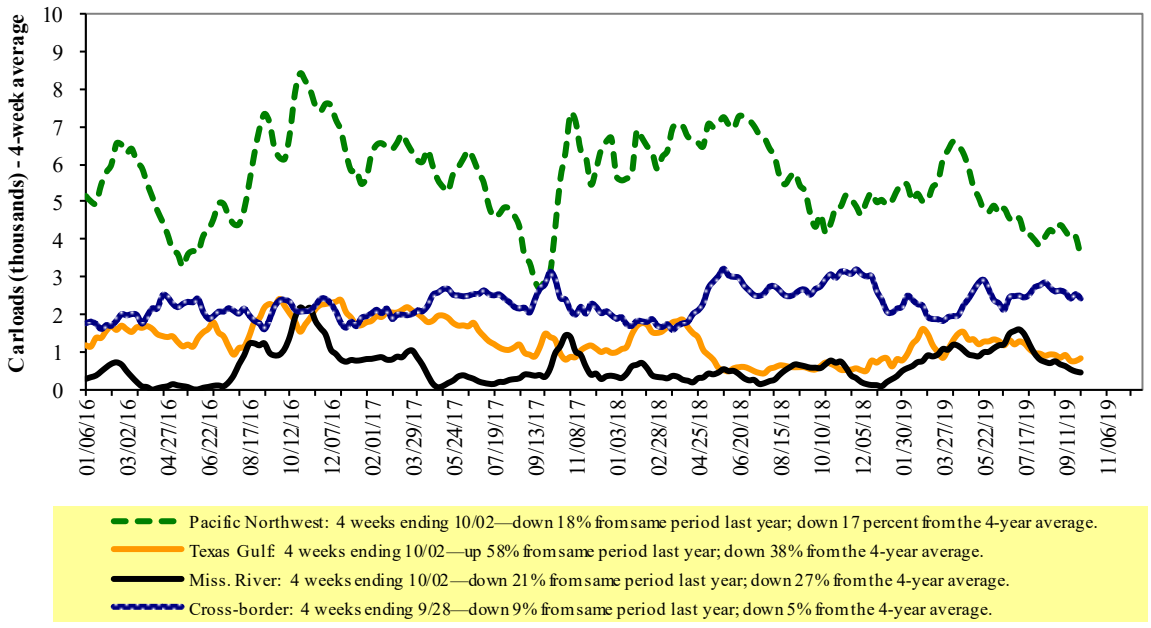
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available.; wks. = weeks; avg. = average.

Source: USDA, Agricultural Marketing Service.

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: USDA, Agricultural Marketing Service.

Table 4

Class I rail carrier grain car bulletin (grain carloads originated)

For the week ending:	East		West			U.S. total	Canada	
9/28/2019	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,739	2,084	8,448	1,444	4,221	17,936	3,679	4,322
This week last year	2,205	2,470	11,068	915	5,159	21,817	4,857	4,638
2019 YTD	70,652	106,981	424,446	43,990	197,832	843,901	156,842	172,068
2018 YTD	74,001	99,878	482,370	36,677	204,630	897,556	153,303	181,297
2019 YTD as % of 2018 YTD	95	107	88	120	97	94	102	95
Last 4 weeks as % of 2018*	99	80	78	139	86	84	64	98
Last 4 weeks as % of 3-yr. avg.**	102	80	78	123	78	82	75	93
Total 2018	98,978	133,225	635,458	48,638	267,713	1,184,012	211,772	244,697

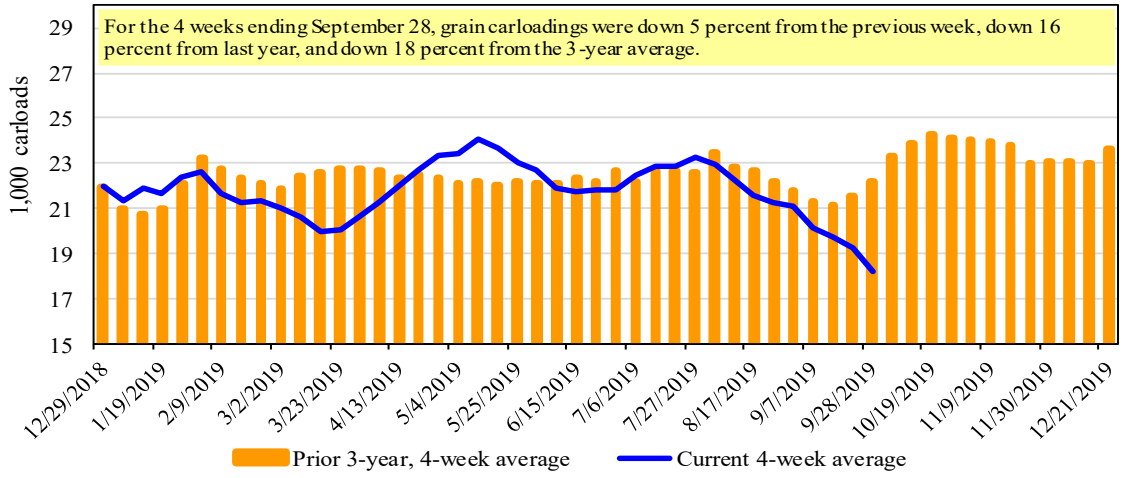
*The past 4 weeks of this year as a percent of the same 4 weeks last year.

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

Source: Association of American Railroads.

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							
10/3/2019		Oct-19	Oct-18	Nov-19	Nov-18	Dec-19	Dec-18	Jan-20	Jan-19
BNSF[3]	COT grain units	0	no bids	0	no bids	0	no bids	no offer	no bids
	COT grain single-car	1	no offer	0	no offer	0	1	no offer	0
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 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. n/a = not available.

[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.

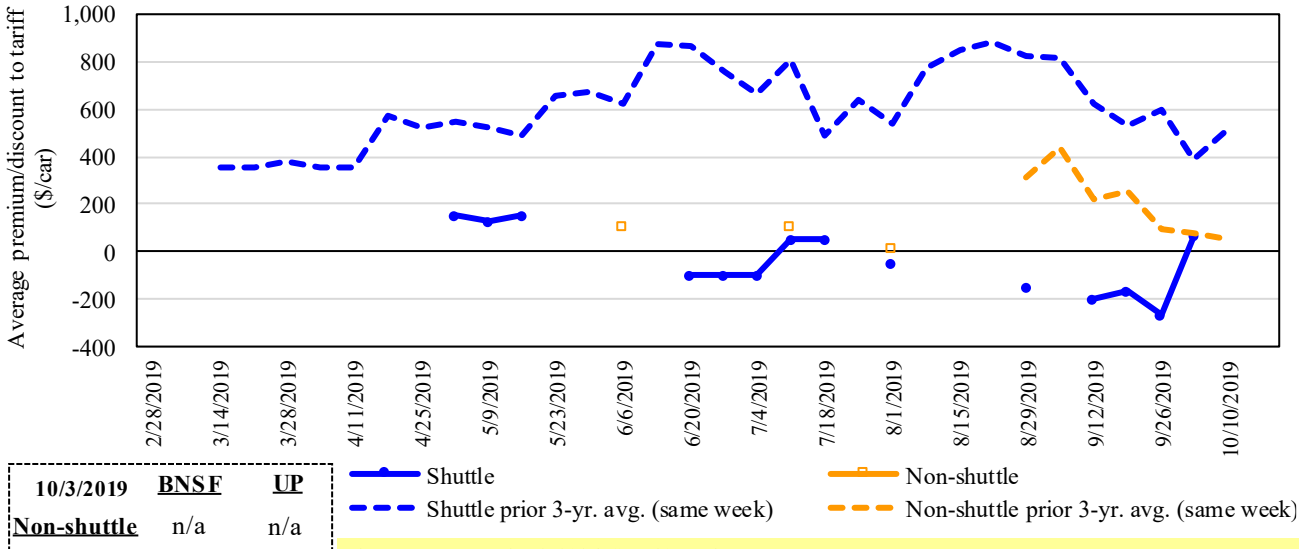
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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

Source: USDA, Agricultural Marketing Service.

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 October 2019, secondary market

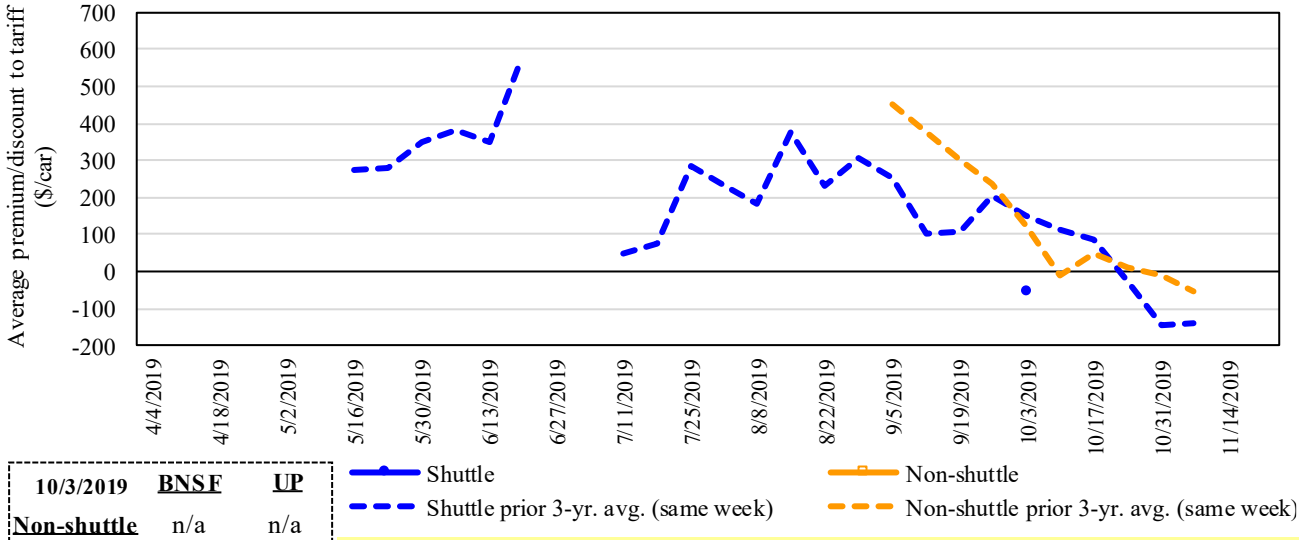


10/3/2019	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$100	$25

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers rose $331 this week and are $88 below the peak.

Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year.
Source: USDA, Agricultural Marketing Service.

Figure 5
Bids/offers for railcars to be delivered in November 2019, secondary market



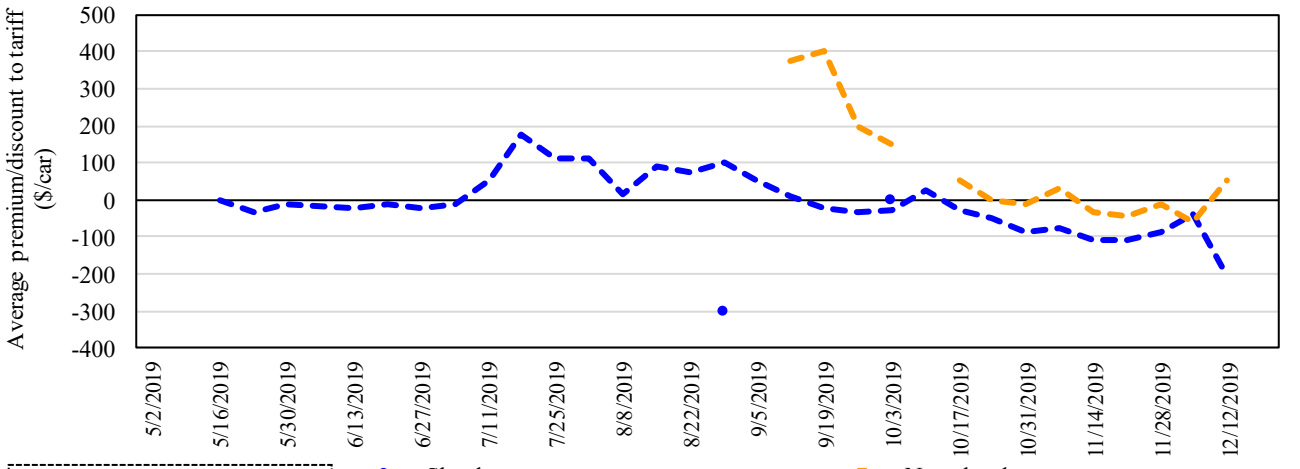
10/3/2019	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	n/a	-$50

There were no non-shuttle bids/offers this week.
There were no shuttle bids/offers last week. Average non-shuttle bids/offers this week are at the peak.

Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year.
Source: USDA, Agricultural Marketing Service.

Figure 6

Bids/offers for railcars to be delivered in December 2019, secondary market



10/3/2019	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	n/a	$0

There were no non-shuttle bids/offers this week.
There were no shuttle bids/offers last week. Average non-shuttle bids/offers this week are at the peak.

Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year.
Source: USDA, Agricultural Marketing Service.

Table 6

Weekly secondary railcar market ($/car)[1]

	For the week ending: 10/3/2019	Delivery period					
		Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-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**	**100**	**n/a**	**n/a**	**275**	**n/a**	**n/a**
	Change from last week	369	n/a	n/a	n/a	n/a	n/a
	Change from same week 2018	125	n/a	n/a	(225)	n/a	n/a
	UP-Pool	**25**	**(50)**	**0**	**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	(108)	(150)	(100)	n/a	n/a	n/a

[1] Average premium/discount to tariff, $/car-last week.

Note: Bids listed are market indicators only and are not guaranteed prices. n/a = not available; GF = guaranteed freight; Pool = guaranteed pool.

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

Source: USDA, Agricultural Marketing Service.

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]

October 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	-1
	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	$3,900	$191	$40.63	$1.03	-4
	Toledo, OH	Raleigh, NC	$6,816	$0	$67.69	$1.72	4
	Des Moines, IA	Davenport, IA	$2,415	$40	$24.38	$0.62	6
	Indianapolis, IN	Atlanta, GA	$5,818	$0	$57.78	$1.47	3
	Indianapolis, IN	Knoxville, TN	$4,874	$0	$48.40	$1.23	4
	Des Moines, IA	Little Rock, AR	$3,800	$119	$38.92	$0.99	-2
	Des Moines, IA	Los Angeles, CA	$5,680	$346	$59.84	$1.52	-2
Soybeans	Minneapolis, MN	New Orleans, LA	$3,631	$179	$37.83	$1.03	-13
	Toledo, OH	Huntsville, AL	$5,630	$0	$55.91	$1.52	3
	Indianapolis, IN	Raleigh, NC	$6,932	$0	$68.84	$1.87	3
	Indianapolis, IN	Huntsville, AL	$5,107	$0	$50.71	$1.38	3
	Champaign-Urbana, IL	New Orleans, LA	$4,645	$191	$48.03	$1.31	-3
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	$7,074	$0	$70.25	$1.91	20
	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	0
Corn	Minneapolis, MN	Portland, OR	$5,180	$0	$51.44	$1.31	0
	Sioux Falls, SD	Tacoma, WA	$5,140	$0	$51.04	$1.30	0
	Champaign-Urbana, IL	New Orleans, LA	$3,820	$191	$39.83	$1.01	-1
	Lincoln, NE	Galveston-Houston, TX	$3,880	$0	$38.53	$0.98	0
	Des Moines, IA	Amarillo, TX	$4,220	$150	$43.39	$1.10	3
	Minneapolis, MN	Tacoma, WA	$5,180	$0	$51.44	$1.31	0
	Council Bluffs, IA	Stockton, CA	$5,000	$0	$49.65	$1.26	0
Soybeans	Sioux Falls, SD	Tacoma, WA	$5,850	$0	$58.09	$1.58	2
	Minneapolis, MN	Portland, OR	$5,900	$0	$58.59	$1.59	2
	Fargo, ND	Tacoma, WA	$5,750	$0	$57.10	$1.55	2
	Council Bluffs, IA	New Orleans, LA	$4,875	$220	$50.60	$1.38	1
	Toledo, OH	Huntsville, AL	$4,805	$0	$47.72	$1.30	4
	Grand Island, NE	Portland, OR	$5,860	$311	$61.28	$1.67	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 pounds per bushel (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 (Y/Y) calculated using tariff rate plus fuel surcharge.

Source: BNSF Railway, Canadian National Railway, CSX Transportation, and Union Pacific Railroad.

Table 8

Tariff rail rates for U.S. bulk grain shipments to Mexico

Date: October 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	$606	$83.17	$2.26	5
	TX	Salinas Victoria, NL	$4,329	$80	$45.05	$1.22	0
Corn	IA	Guadalajara, JA	$8,902	$518	$96.25	$2.44	6
	SD	Celaya, GJ	$8,140	$0	$83.17	$2.11	3
	NE	Queretaro, QA	$8,278	$271	$87.35	$2.22	1
	SD	Salinas Victoria, NL	$6,905	$0	$70.55	$1.79	0
	MO	Tlalnepantla, EM	$7,643	$264	$80.79	$2.05	1
	SD	Torreon, CU	$7,690	$0	$78.57	$1.99	3
Soybeans	MO	Bojay (Tula), HG	$8,547	$484	$92.27	$2.51	5
	NE	Guadalajara, JA	$9,172	$505	$98.87	$2.69	5
	IA	El Castillo, JA	$9,490	$0	$96.97	$2.64	4
	KS	Torreon, CU	$7,964	$349	$84.94	$2.31	4
Sorghum	NE	Celaya, GJ	$7,772	$458	$84.09	$2.13	4
	KS	Queretaro, QA	$8,108	$165	$84.53	$2.15	1
	NE	Salinas Victoria, NL	$6,713	$133	$69.94	$1.77	1
	NE	Torreon, CU	$7,157	$324	$76.44	$1.94	3

[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.

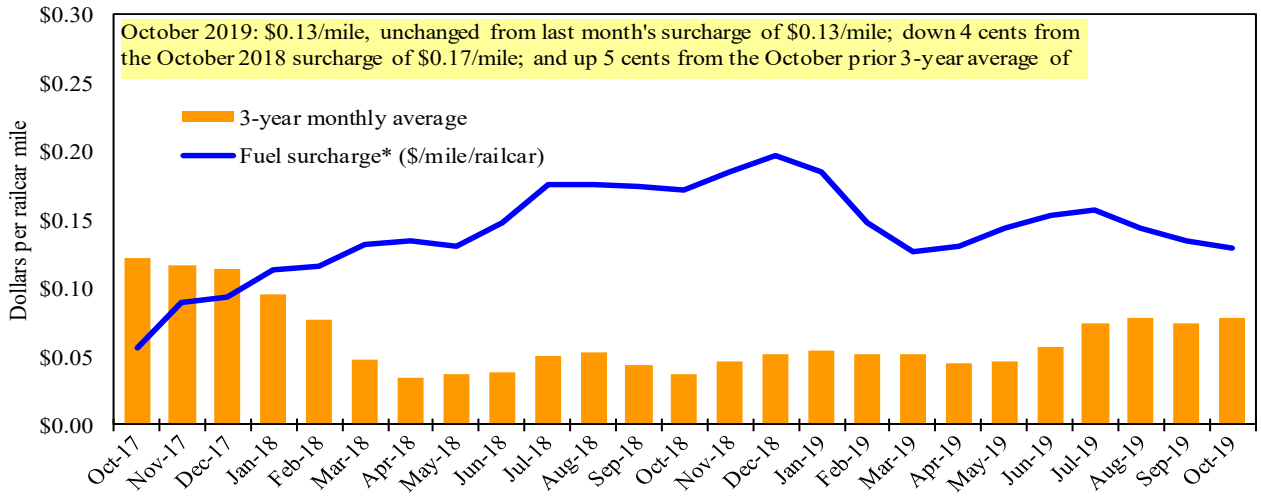
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

[4]Percentage change calculated using tariff rate plus fuel surchage; Y/Y = year to year.

Sources: BNSF Railway, Union Pacific Railroad, Kansas City Southern.

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.

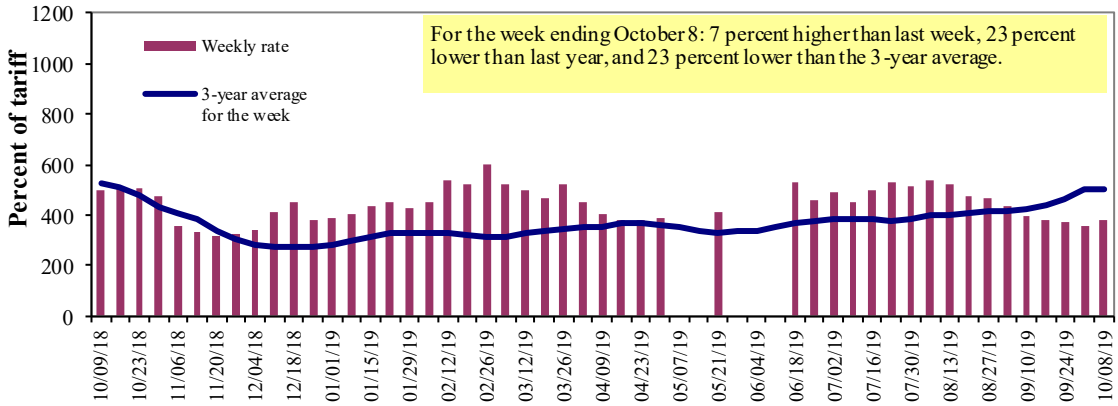
* Beginning January 2009, the Canadian Pacific fuel surcharge is computed by a monthly average of the bi-weekly fuel surcharge.

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

Sources: BNSF Railway, Canadian National Railway, CSX Transportation, Canadian Pacific, Union Pacific Railroad, Kansas City Southern, Norfolk Southern Corp.

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: USDA, Agricultural Marketing Service

Table 9
Weekly Barge Freight Rates: Southbound Only

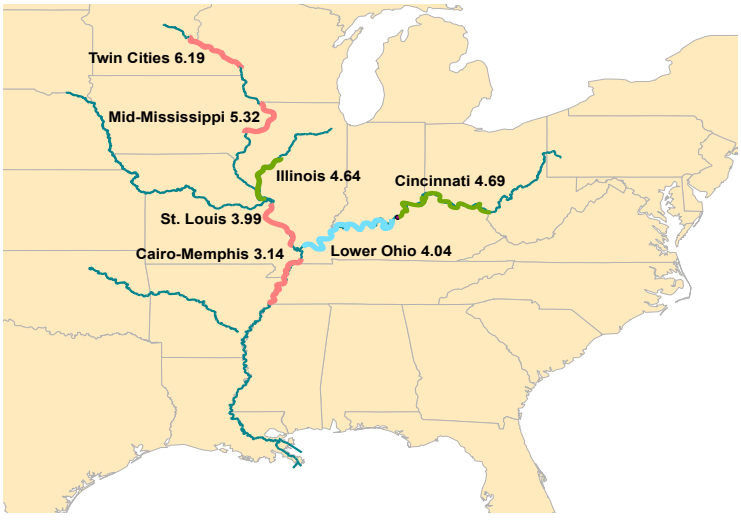
		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate[1]	10/8/2019	382	417	384	355	453	453	373
	10/1/2019	358	406	360	340	431	431	364
$/ton	10/8/2019	23.65	22.18	17.82	14.16	21.25	18.30	11.71
	10/1/2019	22.16	21.60	16.70	13.57	20.21	17.41	11.43
Current week % change from the same week:								
	Last year	-24	-15	-23	-23	1	1	-21
	3-year avg. [2]	-27	-18	-23	-18	-11	-11	-15
Rate[1]	November	388	386	384	355	453	453	275
	January	-	-	388	278	299	299	257

[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: USDA, Agricultural Marketing Service.

Figure 9
Benchmark tariff rates

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

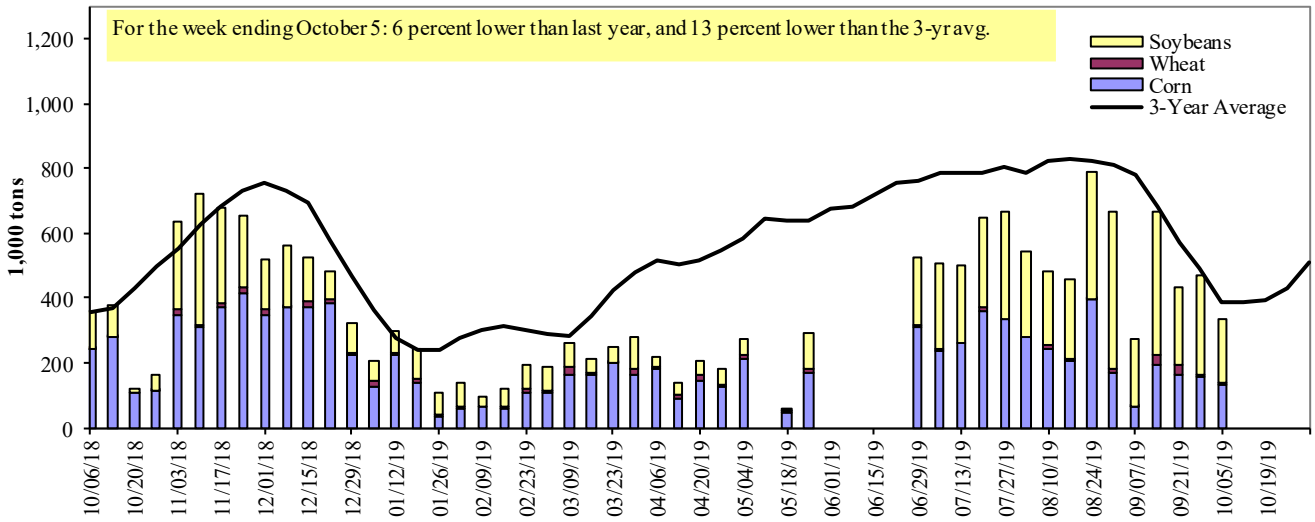
Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map.



Map Credit: USDA, Agricultural Marketing Service

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 10/05/2019	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	69	2	101	0	171
Winfield, MO (L25)	97	8	157	0	261
Alton, IL (L26)	120	8	177	0	305
Granite City, IL (L27)	131	8	197	0	336
Illinois River (LAGRANGE)	6	0	22	0	28
Ohio River (OLMSTED)	102	0	47	4	153
Arkansas River (L1)	0	0	18	0	18
Weekly total - 2019	233	8	263	4	507
Weekly total - 2018	343	20	178	0	542
2019 YTD[1]	9,587	1,305	9,567	134	20,593
2018 YTD[1]	18,783	1,407	9,402	88	29,680
2019 as % of 2018 YTD	51	93	102	153	69
Last 4 weeks as % of 2018[2]	58	103	220	N/A	107
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.

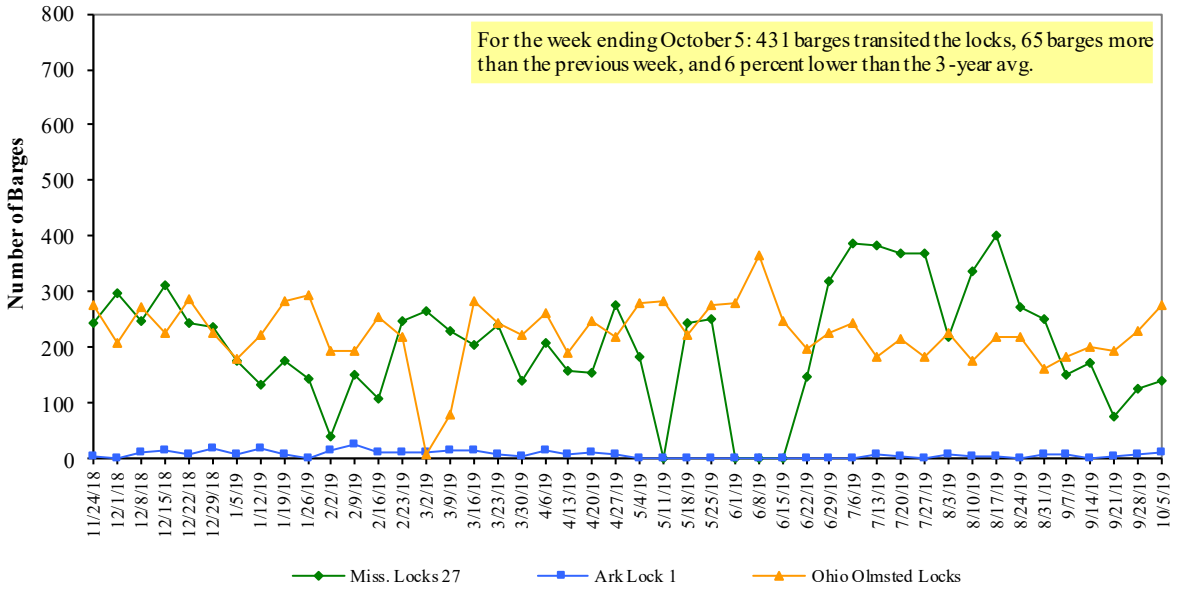
[2] As a percent of same period in 2018.

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

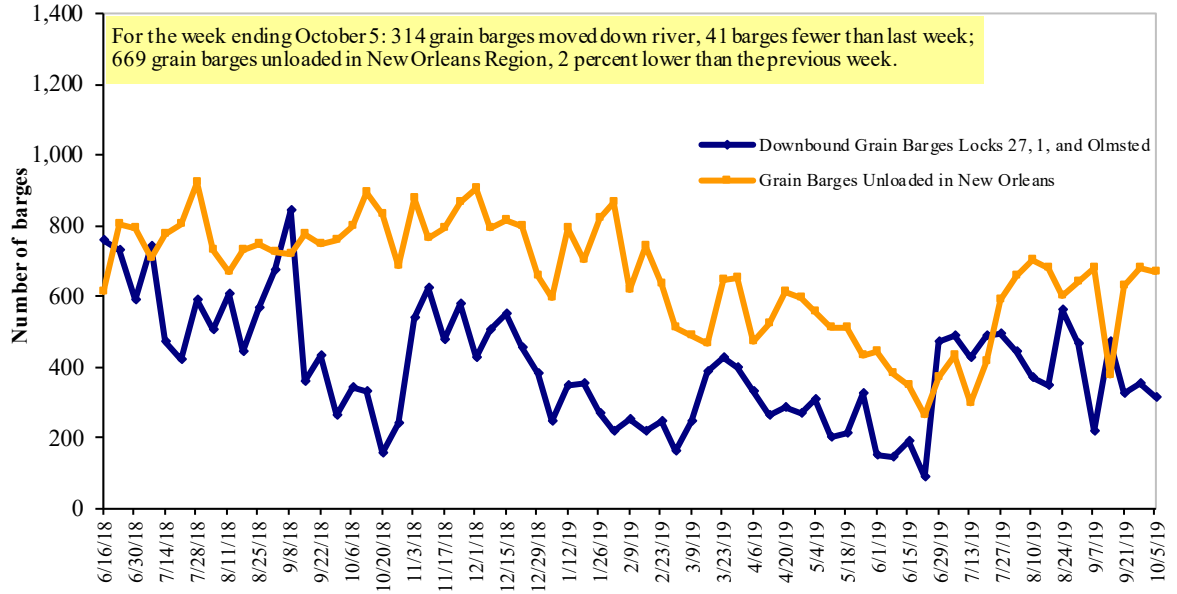
Upbound Empty Barges Transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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 USDA, Agricultural Market Service.

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 10/7/2019 (U.S. $/gallon)

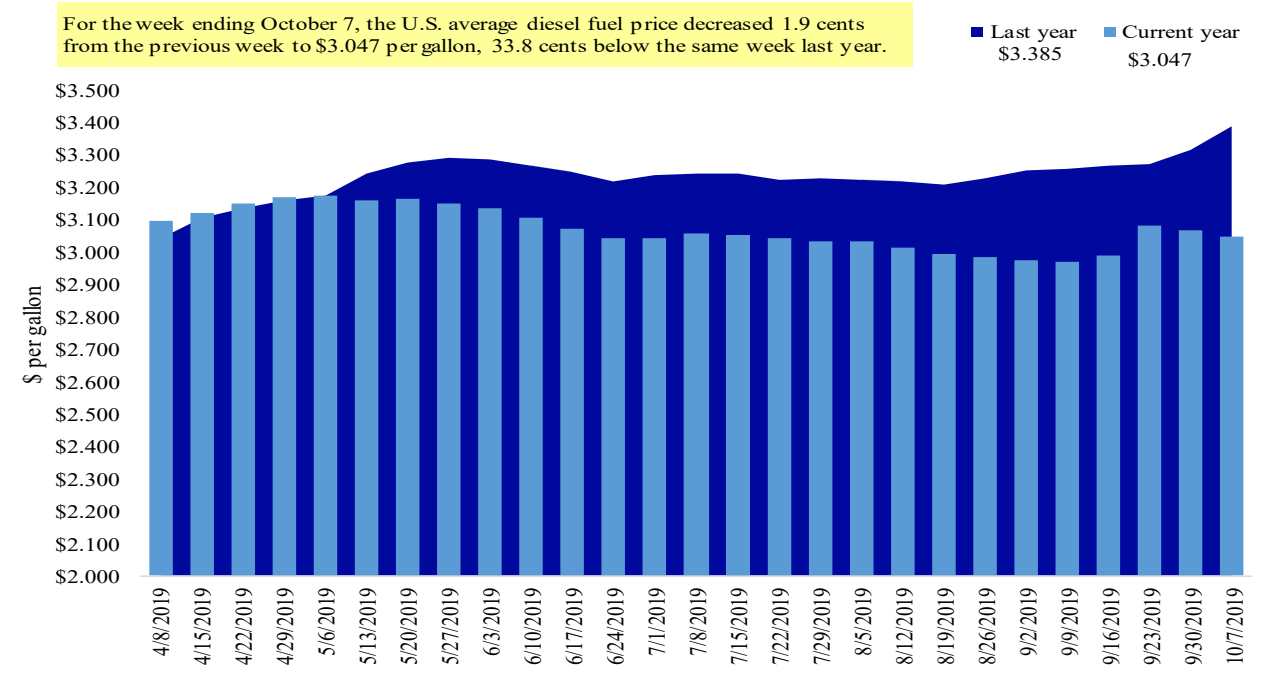
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.041	-0.024	-0.319
	New England	3.047	-0.009	-0.297
	Central Atlantic	3.224	-0.014	-0.307
	Lower Atlantic	2.915	-0.033	-0.328
II	Midwest	2.967	-0.020	-0.384
III	Gulf Coast	2.804	-0.023	-0.365
IV	Rocky Mountain	3.022	-0.010	-0.368
V	West Coast	3.642	-0.003	-0.224
	West Coast less California	3.215	-0.013	-0.343
	California	3.981	0.005	-0.130
Total	U.S.	3.047	-0.019	-0.338

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

Source: U.S. Department of Energy, Energy Information Administration.

Figure 13

Weekly diesel fuel prices, U.S. average



Source: U.S. Department of Energy, Energy Information Administration, Retail On-Highway Diesel Prices.

Grain Exports

Table 12

U.S. export balances and cumulative exports (1,000 metric ton)

	Wheat						Corn	Soybeans	Total
For the week ending	HRW	SRW	HRS	SWW	DUR	All wheat			
Export balances[1]									
9/26/2019	1,247	633	1,438	940	208	4,466	8,105	11,305	23,876
This week year ago	1,447	659	1,400	1,169	124	4,799	15,127	17,088	37,015
Cumulative exports-marketing year[2]									
2019/20 YTD	3,633	1,040	2,115	1,414	237	8,439	1,607	2,990	13,035
2018/19 YTD	1,845	752	1,991	1,726	166	6,481	4,572	3,021	14,074
YTD 2019/20 as % of 2018/19	197	138	106	82	142	130	35	99	93
Last 4 wks as % of same period 2018/19	93	98	114	82	222	100	51	59	61
2018/19 Total	8,591	3,204	6,776	5,164	479	24,214	48,924	46,189	119,327
2017/18 Total	9,150	2,343	5,689	4,854	384	22,419	57,209	56,214	135,842

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

[2] Shipped export sales to date; new marketing year now in effect for wheat, corn, and soybeans.

Note: Marketing Year: wheat = 6/01-5/31, corn and soybeans = 9/01-8/31. YTD = year-to-date. ; wks = weeks; HRW= Hard Red Winter; srw= Soft Red Winter; HRS= Hard Red Spring; SWW= Soft White Wheat; DUR= Durum.

Table 13

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

For the week ending 9/26/2019	Total commitments[2]		% change current MY from last MY	Exports[3] 3-yr. avg. 2016-18
	2019/20 Current MY	2018/19 Last MY		
		- 1,000 mt -		
Mexico	5,338	6,108	(13)	14,659
Japan	1,259	2,926	(57)	11,955
Korea	70	1,681	(96)	4,977
Colombia	269	529	(49)	4,692
Peru	0	657	(100)	2,808
Top 5 Importers	**6,936**	**11,902**	**(42)**	**39,091**
Total U.S. corn export sales	**9,712**	**19,699**	**(51)**	**54,024**
% of projected	19%	38%		
Change from prior week[2]	**563**	**1,431**		
Top 5 importers' share of U.S. corn export sales	71%	60%		72%
USDA forecast, September 2019	**52,163**	**52,417**	**(0)**	
Corn use for ethanol USDA forecast, September 2019	**138,430**	**136,525**	**1**	

Note: (n) indicates negative number; mt = metric ton

[1]Based on USDA, Foreign Agricultural Service (FAS) Marketing Year Ranking Reports for 2018/19; Marketing year (MY) = Sep 1 - Aug 31.

[2]Cumulative exports (shipped) + outstanding sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query. 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; yr. = year; avg. = average.

Table 14

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

For the week ending 9/26/2019	Total Commitments[2] 2019/20 Current MY	2018/19 Last MY	% change current MY from last MY	Exports[3] 3-yr avg. 2016-2018
		- 1,000 mt -		- 1,000 mt -
China	3,613	1,266	185	25,733
Mexico	2,175	2,996	(27)	4,271
Indonesia	401	660	(39)	2,386
Japan	608	651	(7)	2,243
Egypt	578	403	43	1,983
Top 5 importers	**7,375**	**5,976**	**23**	**36,616**
Total US soybean export sales	**14,295**	**20,109**	**(29)**	**53,746**
% of Projected	30%	42%		
Change from prior week[2]	**2,076**	**1,442**		
Top 5 importers' share of U.S. soybean export sales	52%	30%		**68%**
USDA forecast, September 2019	**48,365**	**47,548**	**102**	

(n) indicates negative number.

[1] Based on USDA, Foreign Agricultural Service (FAS) Marketing Year Ranking Reports for 2018/19 ; Marketing year (MY) = Sep 1 - Aug 31.

[2] Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query. 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. (Carryover plus Accumulated Exports).

Table 15

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

For the week ending 9/26/2019	Total Commitments[2] 2019/20 Current MY	2018/19 Last MY	% change current MY from last MY	Exports[3] 3-yr avg 2016-2018
		- 1,000 mt -		- 1,000 mt -
Philippines	1,550	1,718	(10)	3,047
Mexico	1,947	1,332	46	3,034
Japan	1,317	1,362	(3)	2,695
Nigeria	815	580	41	1,564
Indonesia	234	383	(39)	1,381
Korea	745	849	(12)	1,355
Taiwan	559	497	13	1,164
Egypt	101	0	n/a	821
Thailand	417	537	(22)	747
Iraq	262	357	(27)	574
Top 10 importers	**7,948**	**7,615**	4	**16,382**
Total US wheat export sales	**12,905**	**11,280**	**14**	**24,388**
% of Projected	49%	44%		
Change from prior week[2]	**328**	**416**		
Top 10 importers' share of U.S. wheat export sales	62%	68%		67%
USDA forecast, September 2019	**26,567**	**25,504**	**4**	

(n) indicates negative number.

[1] Based on USDA, Foreign Agricultural Service(FAS) Marketing Year Ranking Reports for 2018/19; Marketing year = Jun 1 - May 31.

[2] Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query. 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 .

Source: USDA, Foreign Agriculltural Service.

Table 16

Grain inspections for export by U.S. port region (1,000 metric tons)

Port regions	For the week ending 10/03/19	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	216	224	97	10,449	9,987	105	102	94	13,315
Corn	0	45	0	6,918	16,711	41	4	6	20,024
Soybeans	61	131	47	7,655	6,412	119	545	89	7,719
Total	**278**	**399**	**70**	**25,022**	**33,110**	**76**	**60**	**60**	**41,058**
Mississippi Gulf									
Wheat	65	92	71	3,828	3,046	126	119	136	3,896
Corn	291	212	137	17,017	27,261	62	31	35	33,735
Soybeans	858	767	112	20,396	18,747	109	125	96	28,124
Total	**1,214**	**1,071**	**113**	**41,241**	**49,054**	**84**	**76**	**71**	**65,755**
Texas Gulf									
Wheat	28	115	25	5,206	2,344	222	265	51	3,198
Corn	12	0	n/a	575	628	92	71	27	730
Soybeans	0	0	n/a	2	69	2	n/a	0	69
Total	**40**	**115**	**35**	**5,783**	**3,040**	**190**	**192**	**44**	**3,997**
Interior									
Wheat	37	35	106	1,505	1,294	116	95	105	1,614
Corn	154	157	98	5,883	6,842	86	72	75	8,650
Soybeans	169	131	129	5,293	5,095	104	139	162	6,729
Total	**360**	**324**	**111**	**12,681**	**13,231**	**96**	**94**	**102**	**16,993**
Great Lakes									
Wheat	58	63	91	869	662	131	107	127	894
Corn	0	0	n/a	0	345	0	0	0	404
Soybeans	0	8	0	473	628	75	24	37	1,192
Total	**58**	**71**	**81**	**1,342**	**1,635**	**82**	**66**	**86**	**2,491**
Atlantic									
Wheat	1	0	n/a	37	69	54	187	307	69
Corn	1	1	n/a	98	110	89	9	5	138
Soybeans	6	1	472	995	1,493	67	13	16	2,047
Total	**7**	**2**	**429**	**1,130**	**1,671**	**68**	**14**	**13**	**2,253**
U.S. total from ports*									
Wheat	406	529	77	21,894	17,401	126	114	90	22,986
Corn	458	414	111	30,492	51,898	59	30	35	63,682
Soybeans	1,093	1,038	105	34,814	32,443	107	132	97	45,879
Total	**1,957**	**1,981**	**99**	**87,199**	**101,742**	**86**	**75**	**70**	**132,547**

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

Source: USDA, Federal Grain Inspection Service; YTD= year-to-date; n/a = not applicable 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)

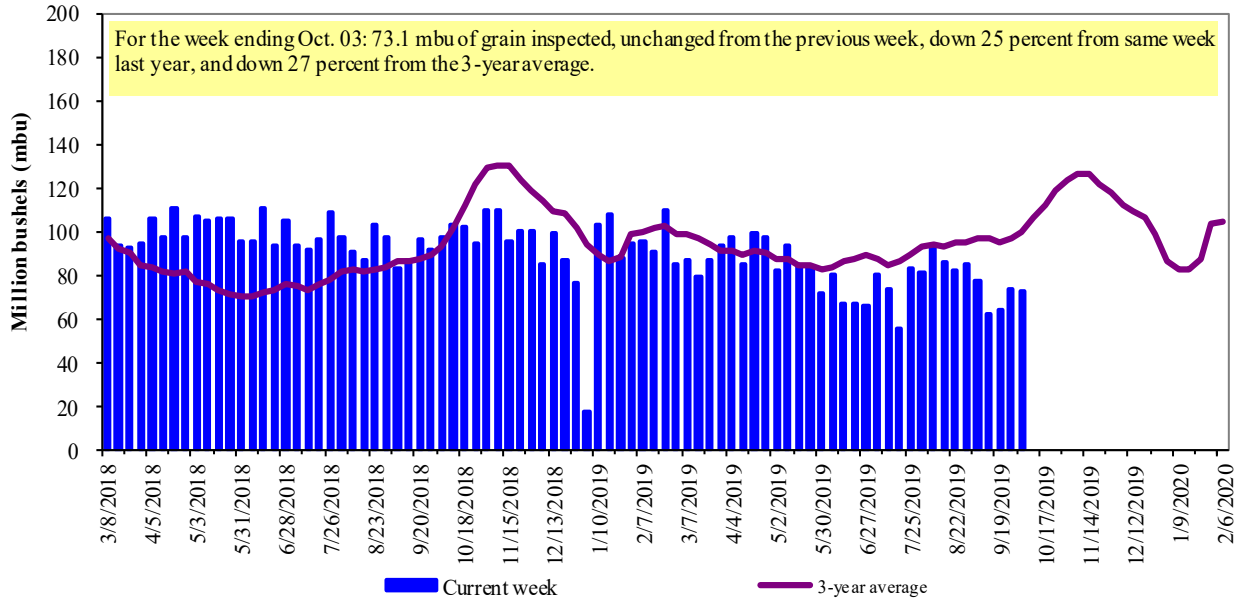
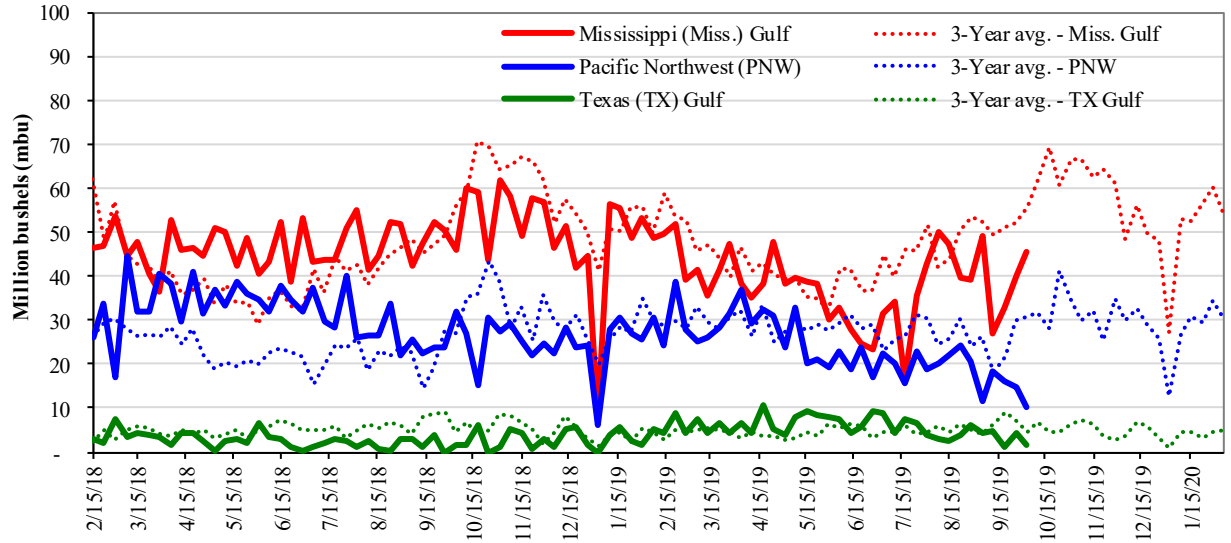


Figure 15

U.S. grain inspections: U.S. Gulf and PNW[1] (wheat, corn, and soybeans)



Week ending 10/03/19 inspections (mbu):	
MS Gulf:	45.4
PNW:	10.2
TX Gulf:	1.5

Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last wk:	up 14	down 64	up 6	down 31
Last Year (same wk):	unchanged	up 2	unchanged	down 68
3-yr avg. (4-wk. mov. Avg):	down 13	down 78	down 20	down 59

Source: USDA, Federal Grain Inspection Service.

Table 17

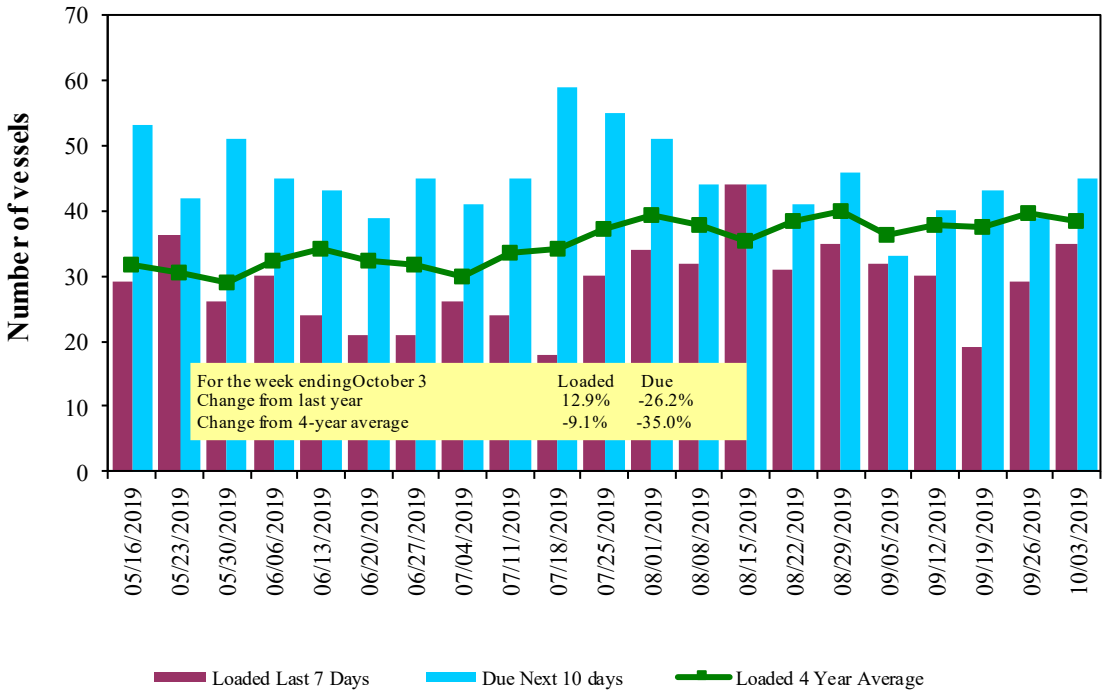
Weekly port region grain ocean vessel activity (number of vessels)

	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
10/3/2019	43	35	45	15
9/26/2019	41	29	39	15
2018 range	(23...88)	(24...41)	(38...67)	(4...30)
2018 average	40	34	54	17

Source: USDA, Agricultural Marketing Service

Figure 16

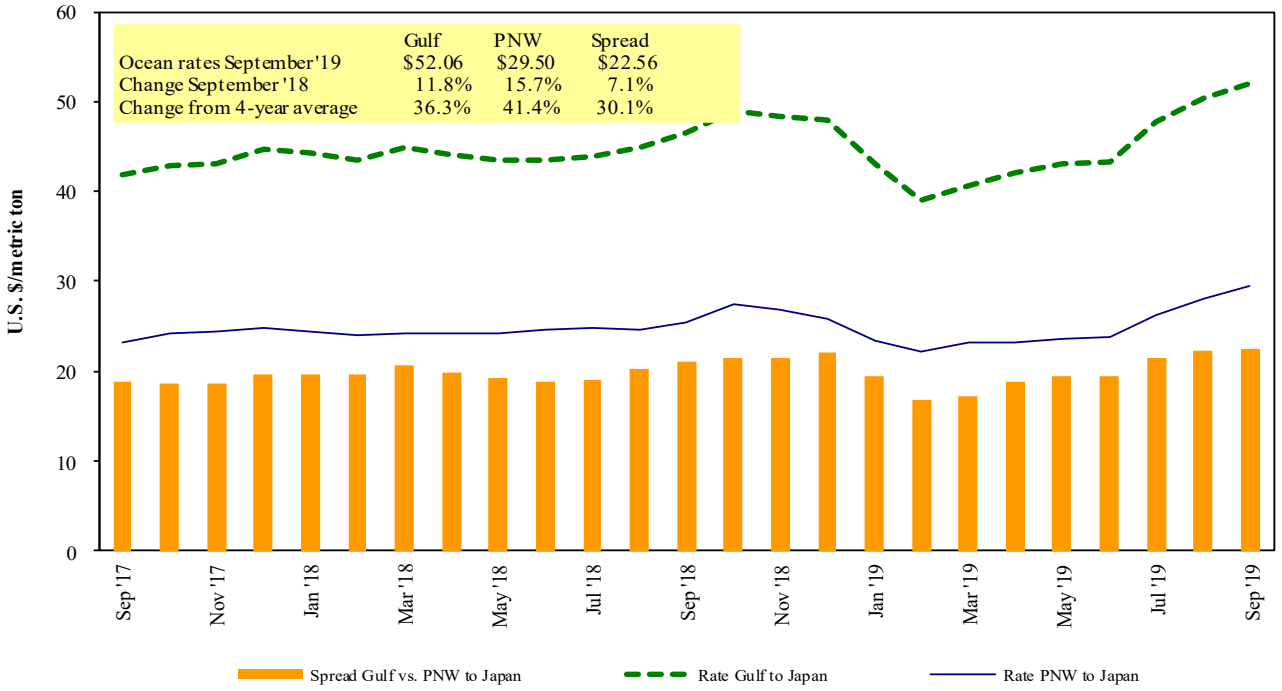
U.S. Gulf[1] vessel loading activity



[1]U.S. Gulf includes Mississippi, Texas, and East Gulf.
Source: USDA, Agricultural Marketing Service.

Figure 17

Grain vessel rates, U.S. to Japan



Note: PNW = Pacific Northwest.

Table 18

Ocean freight rates for selected shipments, week ending 10/05/2019

Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US$/metric ton)
U.S. Gulf	Bangladesh	Wheat	Dec 10/20	48,990	79.92*
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	Bangladesh	Wheat	Dec 10/20	23,080	74.44*
PNW	Philippines	Soybean Meal	Oct 31/31	15,390	49.82*
PNW	Vietnam	Soybean Meal	Oct 21/31	3,200	49.82*
PNW	Yemen	Wheat	Sep 5/15	35,380	59.59*
PNW	Yemen	Wheat	Sep 20/30	35,000	62.19*
Brazil	China	Heavy Grain	Oct 1/10	65,000	32.00
Brazil	China	Heavy Grain	Jun 10/20	65,000	33.00
Brazil	China	Heavy Grain	Apr 20/May 5	63,000	33.00

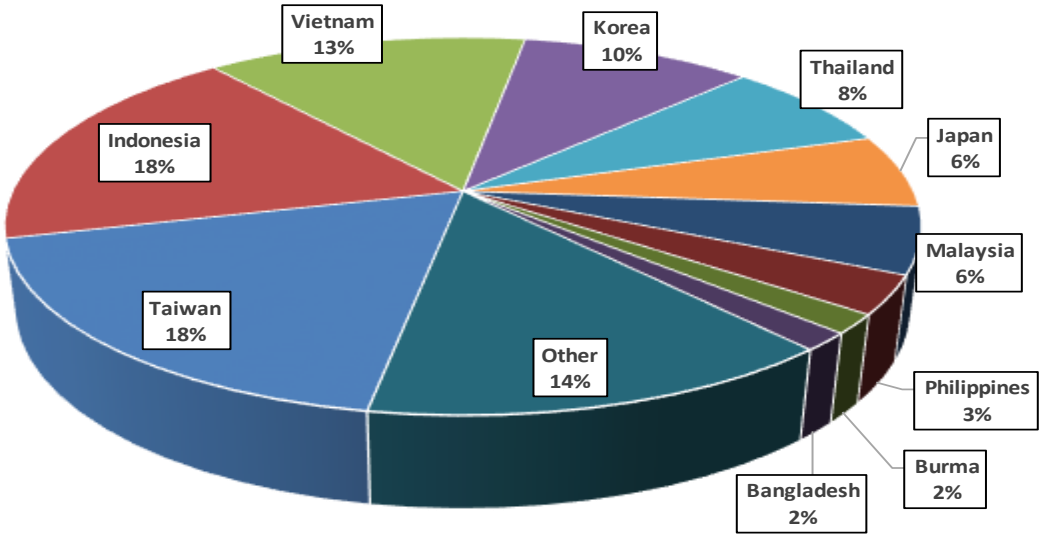
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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

Source: Maritime Research, Inc.

In 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.

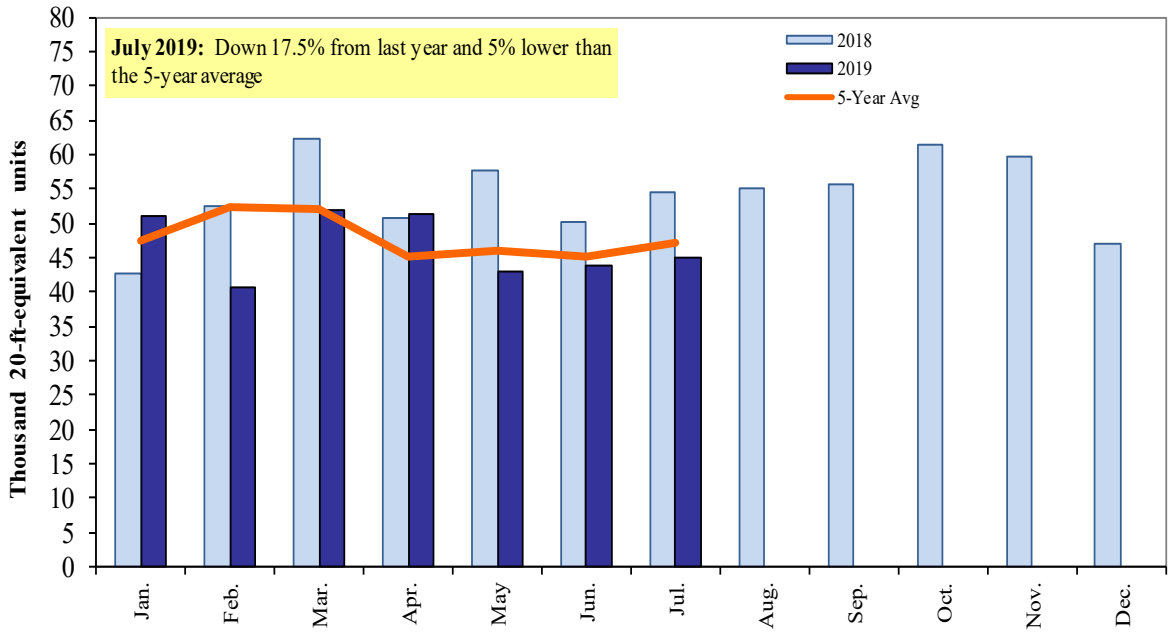
Figure 18
Top 10 Destination Markets for U.S. Containerized Grain Exports, Jan-Jul 2019



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.

Source: USDA, Agricultural Marketing Service, Transportation Services Division analysis of PIERS data.

Figure 19
Monthly Shipments of Containerized Grain to Asia



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.

Source: USDA, Agricultural Marketing Service, Transportation Services Division analysis of PIERS data.

Contacts and Links

Coordinators		
Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
Kuo-Liang (Matt) Chang	matt.chang@usda.gov	(202) 720 - 0299
Grain Transportation Indicators		
Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
Rail Transportation		
Johnny Hill	johnny.hill@usda.gov	(202) 690 - 3295
Jesse Gastelle	jesse.gastelle@usda.gov	(202) 690 - 1144
Peter Caffarelli	petera.caffarelli@usda.gov	(202) 690 - 3244
Barge Transportation		
April Taylor	april.taylor@usda.gov	(202) 720 - 7880
Kuo-Liang (Matt) Chang	matt.chang@usda.gov	(202) 720 - 0299
Kelly P. Nelson	kelly.nelson@usda.gov	(202) 690 - 0992
Truck Transportation		
April Taylor	april.taylor@usda.gov	(202) 720 - 7880
Grain Exports		
Johnny Hill	johnny.hill@usda.gov	(202) 690 - 3295
Ocean Transportation		
Surajudeen (Deen) Olowolayemo (Freight rates and vessels)	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
April Taylor (Container movements)	april.taylor@usda.gov	(202) 720 - 7880
Editor		
Maria Williams	maria.williams@usda.gov	(202) 690-4430

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

Preferred citation: U.S. Dept. of Agriculture, Agricultural Marketing Service. *Grain Transportation Report.* October 10, 2019. Web: **http://dx.doi.org/10.9752/TS056.10-10-2019**