



Grain Transportation Report

A weekly publication of the Agricultural Marketing Service
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WEEKLY HIGHLIGHTS

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Grain Inspections Rebound; Soybeans Highest Since February

For the week ending October 17, **total inspections of grain** (corn, wheat, and soybeans) for export from all major U.S. export regions reached 2.5 million metric tons (mmt). Inspections were up 24 percent from the previous week, down 9 percent from last year, and 18 percent below the 3-year average. Total inspections of wheat, corn, and soybeans increased by 14 percent, 11 percent, and 36 percent, respectively, from the past week. Soybean inspections were the highest they had been since late February. Although inspections of soybeans destined to Asia increased notably, inspections destined to China were still below average. Pacific Northwest (PNW) inspections increased 52 percent from the previous week while Mississippi Gulf grain inspections increased 16 percent.

California Plans Public Hearing on Control Measure for Oceangoing Vessels

On December 5, 2019, the California Air Resources Board will conduct a [public hearing](#) on a proposed regulation aimed at reducing air pollution at California ports and marine terminals. Implementing several changes to the existing At-Berth regulation, the proposed regulation would further reduce emissions generated from oceangoing vessels at berth. The new regulation would also help carriers meet compliance challenges stemming from operational difficulties that could not be foreseen when the existing regulation was written. Furthermore, the proposed regulation would expand the scope of the existing regulation by increasing the number of controlled visits from the currently regulated vessel categories and by including new vessel categories (such as vehicle carriers and tanker vessels), new ports, and independent marine terminals. Written comments not physically submitted at the hearing must be submitted by December 2, 2019.

Port of Virginia Solidifies Plans To Deepen and Expand Shipping Channels

On October 9, the Port of Virginia contracted with an international dredging firm to begin the initial phase of its deepening project in January 2020. The work includes dredging the shipping channels to 55 feet—with deeper ocean approaches—and widening the channel to more than 1,400 feet in specific areas. When dredging is complete in 2024, the commercial channels serving the Norfolk Harbor will be able to simultaneously accommodate two ultra-large container vessels. This project will position the port with the deepest shipping channel on the East Coast. The Port of Norfolk is the third largest port for U.S. containerized grain exports. For more information, see the Port of Virginia's website.

Snapshots by Sector

Export Sales

For the week ending October 10, **unshipped balances** of wheat, corn, and soybeans totaled 25.1 mmt. This represents a 27-percent decrease in outstanding sales, compared to the same time last year. Net **corn export sales** reached .369 mmt, down 29 percent from the past week. Net **soybean export sales** were 1.60 mmt, down 20 percent from the previous week. Net weekly **wheat export sales** reached .395 mmt, down 24 percent from the from the previous week.

Rail

U.S. Class I railroads originated 20,911 **grain carloads** during the week ending October 12. This is a 6-percent increase from the previous week, 6 percent less than last year, and 12 percent lower than the 3-year average.

Average November shuttle **secondary railcar** bids/offers (per car) were \$94 above tariff for the week ending October 17. This is \$138 more than last week and \$13 more than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending October 19, **barge grain movements** totaled 310,061 tons. This is a 40-percent decrease from the previous week and 9 percent more than the same period last year.

For the week ending October 19, 196 grain barges **moved down river**. This is 131 fewer barges than the previous week. There were 804 grain barges **unloaded in New Orleans**, 9 percent more than the previous week.

Ocean

For the week ending October 17, 34 **oceangoing grain vessels** were loaded in the Gulf—11 percent fewer than the same period last year. Fifty-three vessels are expected to be loaded within the next 10 days (starting October 18). This is 15 percent fewer than the same period last year.

As of October 17, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$51.50. This is unchanged from the previous week. The rate from PNW to Japan was \$28.50 per mt, unchanged from the previous week.

Fuel

For the week ending October 21, the U.S. average **diesel fuel price** decreased 0.1 cents from the previous week to \$3.050 per gallon. This price is 33 cents less than the same week last year.

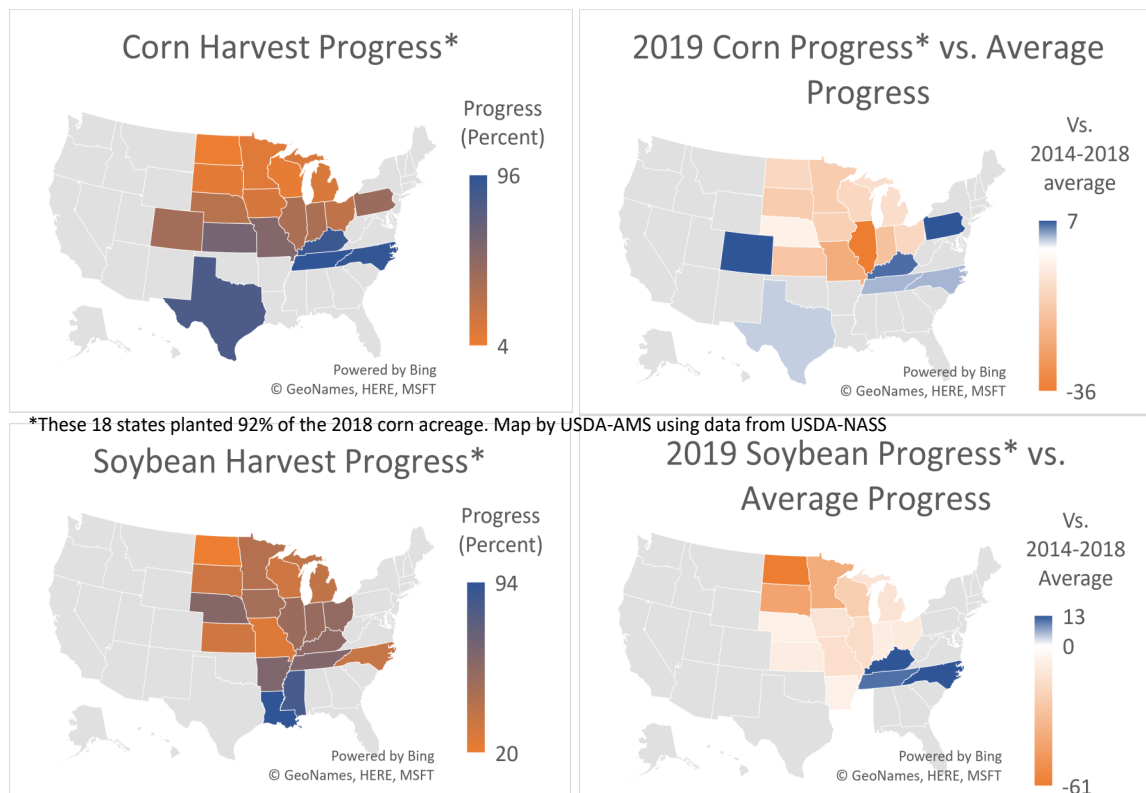
Feature Article/Calendar

Harvest Progress and the Effects on Barge Transportation Markets

The availability of grain is a factor in determining the demand for grain transportation. Using 2019 harvest progress data, this feature examines the relationship between harvest progress and demand for transportation by barge. It shows the current harvest progress is influencing barge transportation.

Pace of the Corn and Soybean Harvests Across the United States

Currently the percentage of harvesting completed is low in general but varies among States, largely depending on how favorable the year's weather was for planting and growing crops in different parts of the country. According to USDA's National Agricultural Statistics Service (NASS), as of October 21, 30 percent of corn and 46 percent of soybeans has been harvested, versus 47 percent and 64 percent, respectively, for the previous 5-year average. This shortfall from the average is partly due to delayed planting from poor weather in the spring, which also caused crop maturity to lag. For example, Illinois and Missouri are 34 percentage points and 22 percentage points, respectively, behind their prior 5-year-average corn harvest progress. Similarly, North Dakota, South Dakota, and Minnesota are 61 points, 43 points, and 39 points, respectively, behind their normal soybean harvest progress. Even where crops have matured, autumn rain in the Midwest has further delayed harvesting. States that have had drier weather, such as North Carolina, have made greater progress than those with wetter fall months.



*These 18 states planted 92% of the 2018 corn acreage. Map by USDA-AMS using data from USDA-NASS

*These 18 states planted 95% of the 2018 soybean acreage. Map by USDA-AMS using data from USDA-NASS

Harvest Progress and Barge Transportation

Although poor weather and navigation conditions negatively affected overall barge traffic in 2019, the impact has varied by region. The States where harvest has progressed at or above the normal pace (like Texas and North Carolina) either do not use the Mississippi River for barge shipments or (like Tennessee, Mississippi, and Louisiana) have access to the waterways below the locking system. This situation has resulted in a larger share of barges arriving in the Gulf that have not transited the locks. In 2019, 44 percent of the barges being unloaded in New Orleans from July 28 through October 19 did not come through the locks, compared to 40 percent in the same period in 2018.

The Ohio River and its tributaries run through States such as Pennsylvania, Tennessee, and Kentucky that have experienced rapid harvest progress. Because of that fast progress, the locking portion of the river system has experienced high volumes of grain traffic for the year and high recent soybean shipments. At the Olmsted Lock and Dam near the Ohio's confluence with the Mississippi, movements from July 28 through October 19 showed a 24-percent decrease in overall grain shipments from 2018 to 2019. However, at the same location and for the same July-to-October timespan, movements showed nearly a 4-percent increase in *soybean* shipments from 2018 to 2019. Some States that access the Ohio River, such as Kentucky and Tennessee, are ahead of their average harvest rates while other States that also access the river are behind schedule. Those that are behind—like Illinois, Ohio, and Indiana—produce significantly more grain, corn in particular. For the delayed States, the delays are greater for corn than for soybeans.

Because of slow harvest progress in the North and Midwest, the market for grain shipment by barge has recently been slow, reflected by low barge demand and low rates in the Twin Cities, mid-Mississippi River, and Illinois River. In contrast, rates have recently been higher on the Ohio River and on the “Memphis-to-Cairo” stretch of the Mississippi, a more southern area where Tennessee and Kentucky have river access. However, it is important to note that even in these areas, this year's rates have still generally fallen behind their 5-year averages.

If Northern States do not make adequate progress before the upper portions of the Mississippi close due to freezing, barge transportation will become unavailable, and grain purveyors who would normally ship grain by barge will be forced either to store until the river reopens or ship via a different mode. A decision to store could create high demand for barge shipping in the spring months when the river has reopened.

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Grain Transportation Indicators

Table 1

Grain transport cost indicators¹

For the week ending	Truck	Rail		Barge	Ocean	
		Unit train	Shuttle		Gulf	Pacific
10/23/19	205	n/a	229	219	230	202
10/16/19	205	n/a	227	206	230	202

¹Indicator: Base year 2000 = 100; Weekly updates include truck = diesel (\$/gallon); rail = near-month secondary rail market bid and monthly tariff rate with fuel surcharge (\$/car); barge = Illinois River barge rate (index = percent of tariff rate); 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)

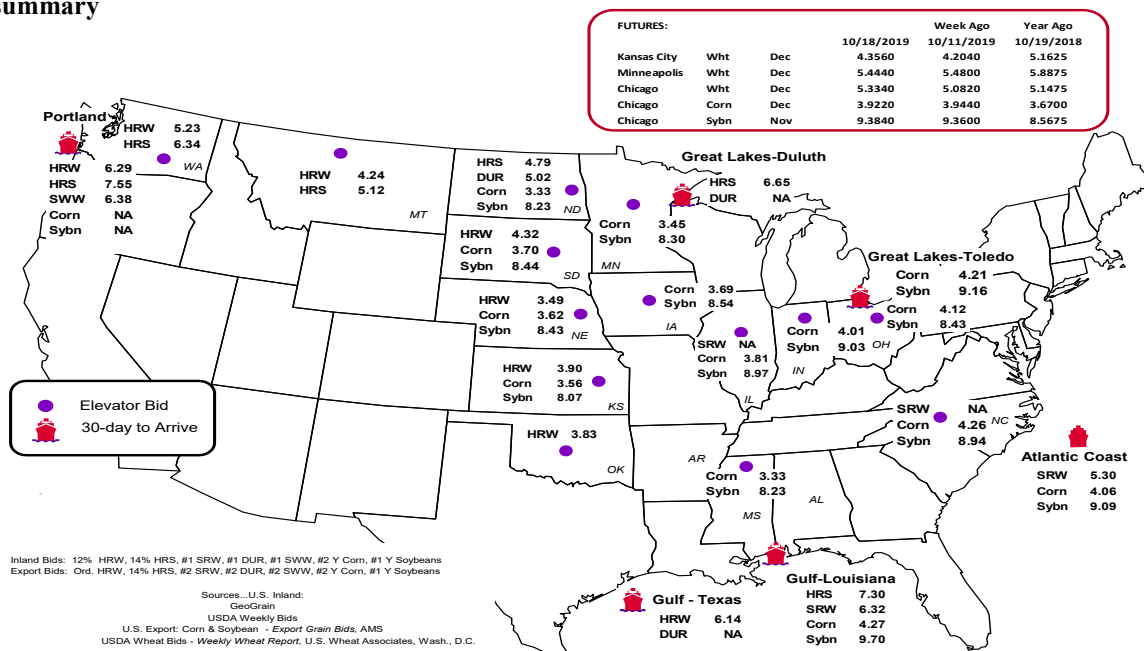
Commodity	Origin-destination	10/18/2019	10/11/2019
Corn	IL-Gulf	-0.46	-0.45
Corn	NE-Gulf	-0.65	-0.61
Soybean	IA-Gulf	-1.16	-1.13
HRW	KS-Gulf	-2.24	-2.46
HRS	ND-Portland	-2.76	-2.85

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		Pacific	Atlantic &	Total	Week ending	Cross-border Mexico ³
	Gulf	Texas Gulf	Northwest	East Gulf			
10/16/2019 ^p	344	608	4,118	274	5,344	10/12/2019	2,925
10/09/2019 ^f	342	940	2,999	180	4,461	10/5/2019	2,466
2019 YTD ^f	36,292	45,405	201,467	14,220	297,384	2019 YTD	100,363
2018 YTD ^f	18,791	40,804	260,084	16,710	336,389	2018 YTD	99,975
2019 YTD as % of 2018 YTD	193	111	77	85	88	% change YTD	100
Last 4 weeks as % of 2018 ²	62	122	84	42	83	Last 4wks. % 2018	90
Last 4 weeks as % of 4-year avg. ²	32	81	58	32	55	Last 4wks. % 4 yr	108
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

¹Data 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.

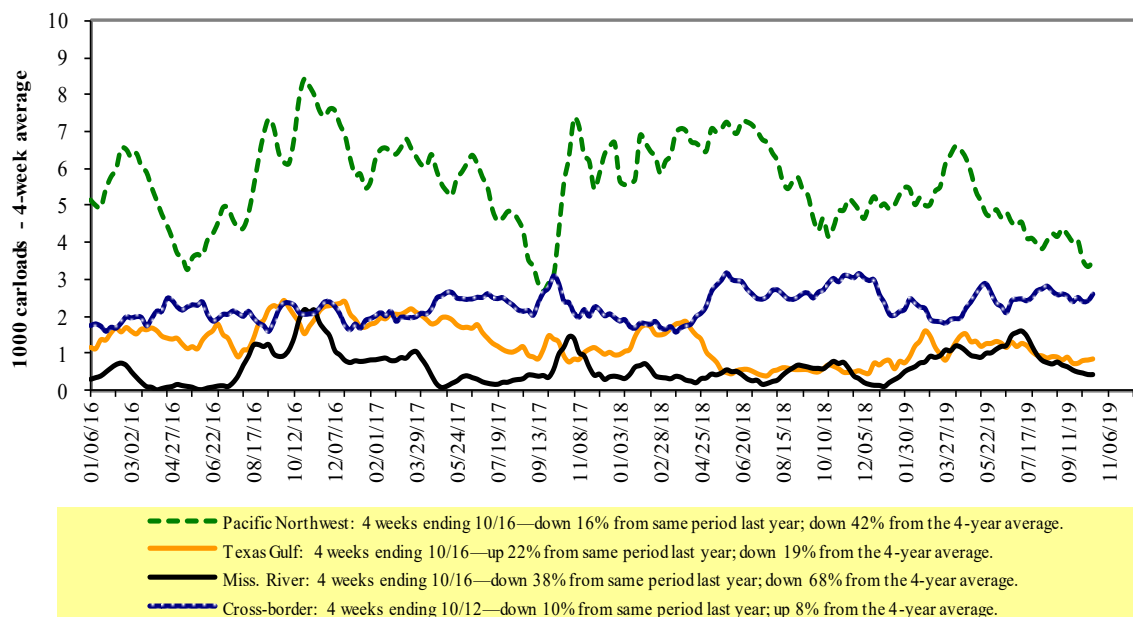
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available.; wks. = weeks; avg. = average.

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)

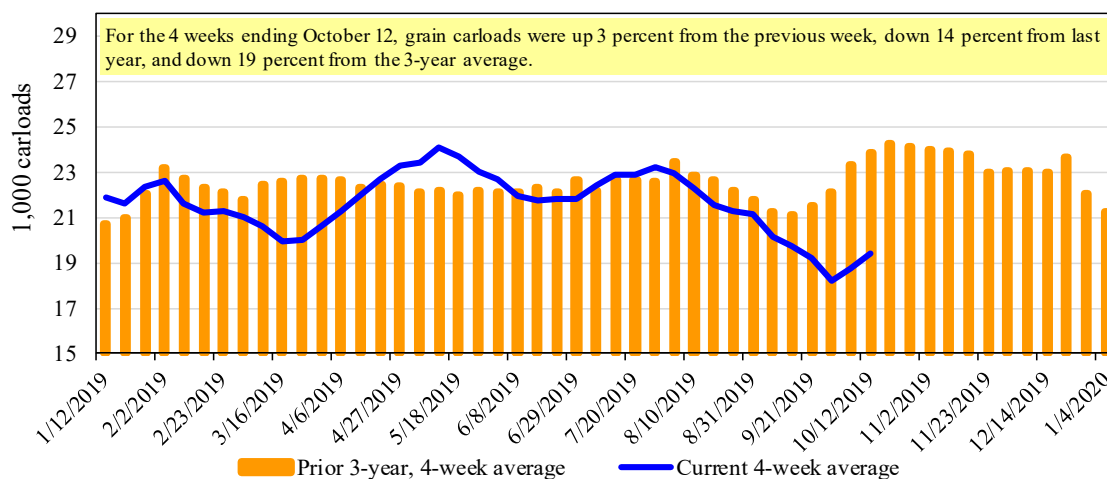
For the week ending: 10/12/2019	East		West			U.S. total	Canada	
	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	1,637	2,125	10,993	1,134	5,022	20,911	3,611	5,358
This week last year	2,309	2,656	11,756	929	4,479	22,129	4,407	4,663
2019 YTD	73,938	111,199	445,023	46,494	207,856	884,510	165,352	181,874
2018 YTD	78,443	105,035	506,074	38,470	214,356	942,378	162,590	191,065
2019 YTD as % of 2018 YTD	94	106	88	121	97	94	102	95
Last 4 weeks as % of 2018*	81	84	83	125	90	86	81	98
Last 4 weeks as % of 3-yr. avg.**	82	75	81	114	78	81	83	89
Total 2018	98,978	133,201	635,458	48,638	267,713	1,183,988	211,762	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 loads

Source: Association of American Railroads.

Table 5

Railcar auction offerings¹ (\$/car)²

For the week ending: 10/17/2019	Delivery period								
	Nov-19	Nov-18	Dec-19	Dec-18	Jan-20	Jan-19	Feb-20	Feb-19	
BNSF ³	COT grain units	no bid	no offer	no bid	no offer	no bid	0	no bid	n/a
	COT grain single-car	0	no offer	0	no offer	6	0	7	n/a
UP ⁴	GCAS/Region 1	no offer	no offer	no offer	no offer	no offer	n/a	n/a	n/a
	GCAS/Region 2	no bid	no bid	no bid	no offer	no offer	n/a	n/a	n/a

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

²Average premium/discount to tariff, last auction. n/a = not available.

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

⁴UP - GCAS = Grain Car Allocation System.

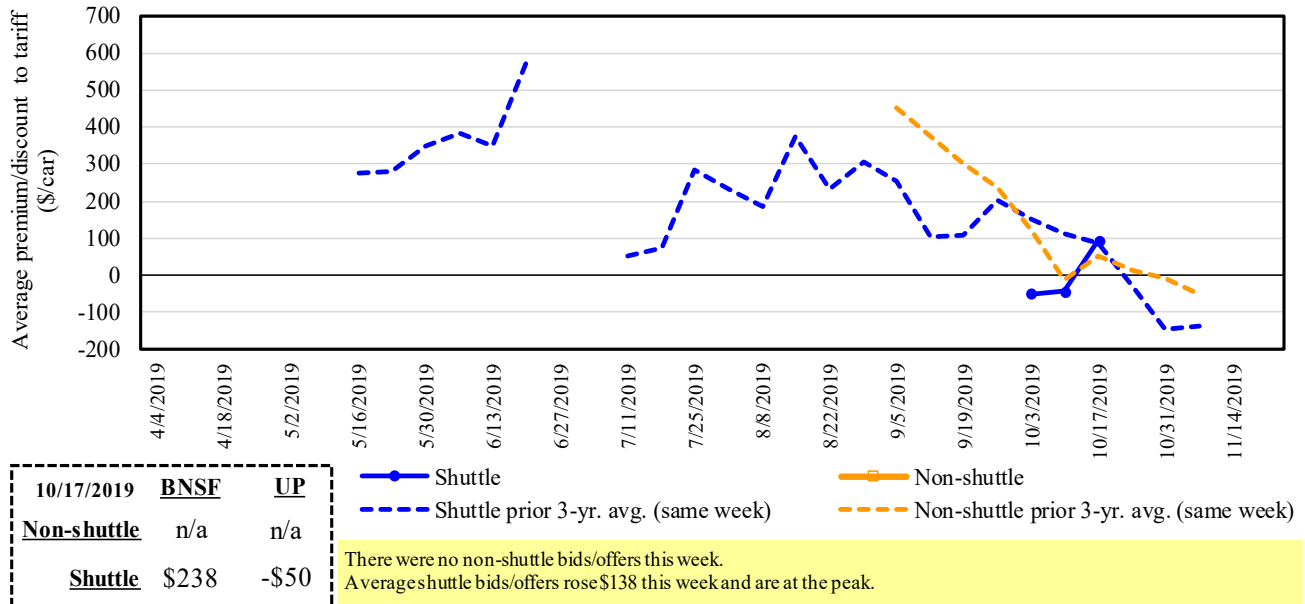
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

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

Source: USDA, Agricultural Marketing Service.

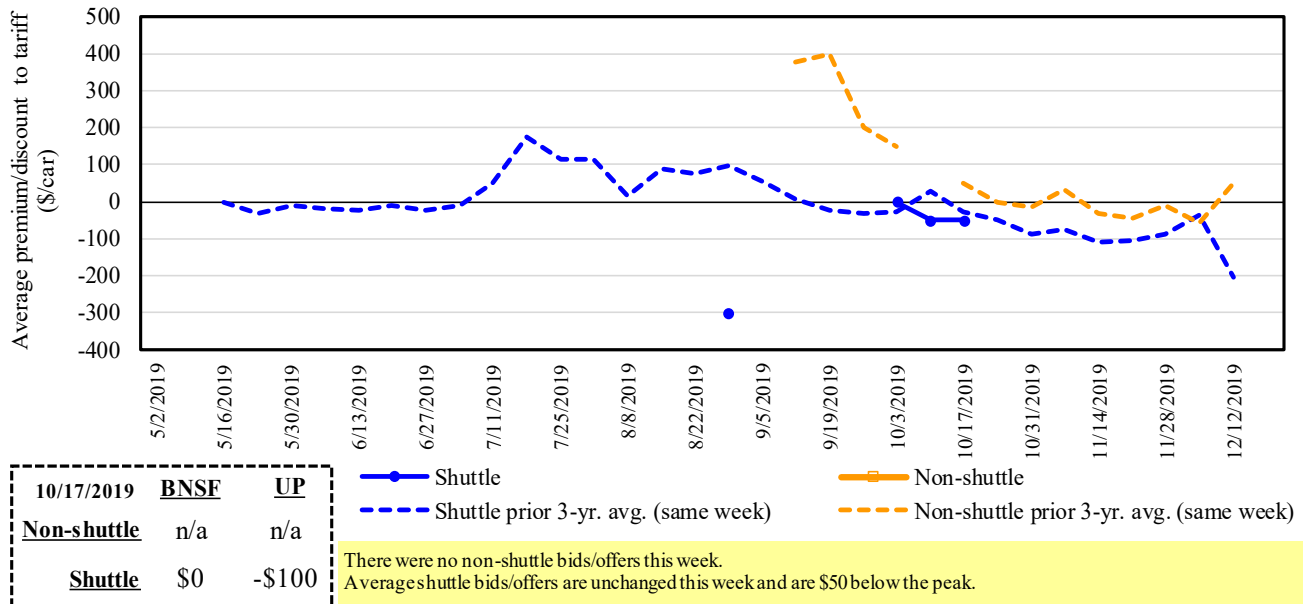
The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4
Bids/offers for railcars to be delivered in November 2019, secondary market



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

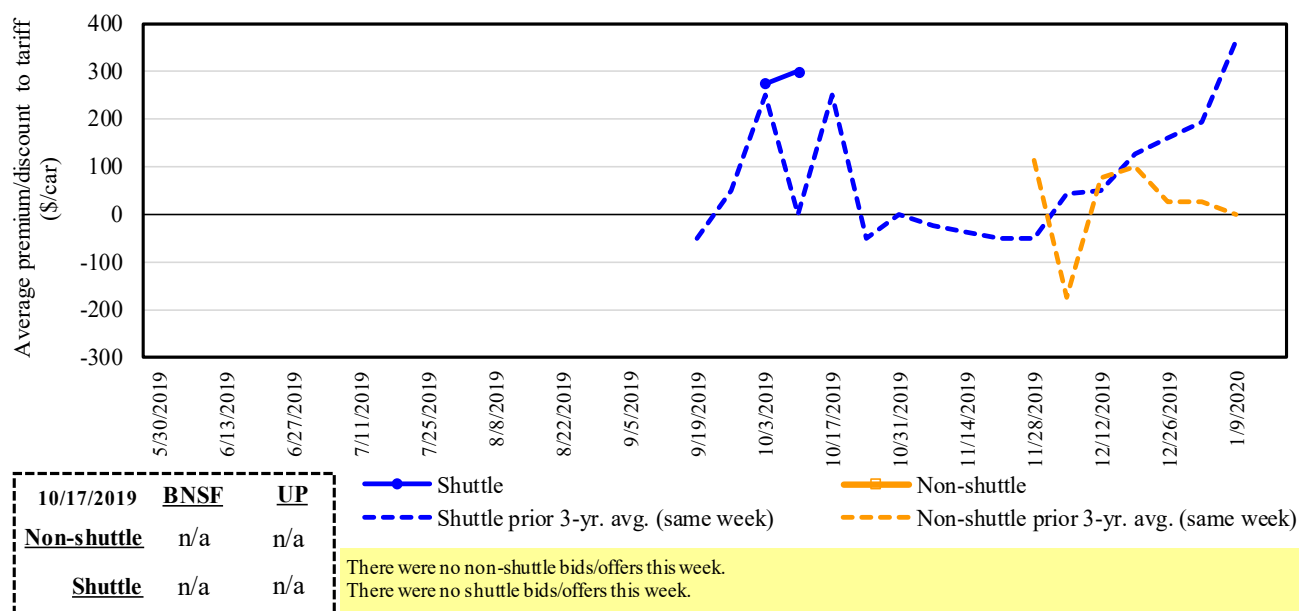
Figure 5
Bids/offers for railcars to be delivered in December 2019, secondary market



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 January 2020, secondary market



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:		Delivery period					
		Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20
10/17/2019							
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	238	0	n/a	n/a	n/a	n/a
	Change from last week	225	50	n/a	n/a	n/a	n/a
	Change from same week 2018	113	n/a	n/a	n/a	n/a	n/a
	UP-Pool	(50)	(100)	n/a	n/a	n/a	n/a
	Change from last week	50	(50)	n/a	n/a	n/a	n/a
	Change from same week 2018	(88)	(188)	n/a	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 shipments¹

October 2019	Origin region ³	Destination region ³	Tariff rate/car	Fuel surcharge per car	Tariff plus surcharge per:		Percent change Y/Y ⁴
					metric ton	bushel ²	
Unit train							
Wheat	Wichita, KS	St. Louis, MO	\$3,983	\$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
	Minneapolis, MN	Portland, OR	\$5,180	\$0	\$51.44	\$1.31	0
Corn	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
	Sioux Falls, SD	Tacoma, WA	\$5,850	\$0	\$58.09	\$1.58	2
Soybeans	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

¹A unit train refers to shipments of at least 25 cars. Shuttle train rates are generally available for qualified shipments of

75-120 cars that meet railroad efficiency requirements.

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

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

⁴Percentage change year over year (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			Fuel				Percent change ⁴
Commodity	Origin state	Destination region	Tariff rate/car ¹	surchage per car ²	Tariff plus surcharge per:		
					metric ton ³	bushel ³	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

¹Rates are based upon published tariff rates for high-capacity shuttle trains. Shuttle trains are available for qualified shipments of 75-110 cars that meet railroad efficiency requirements.

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

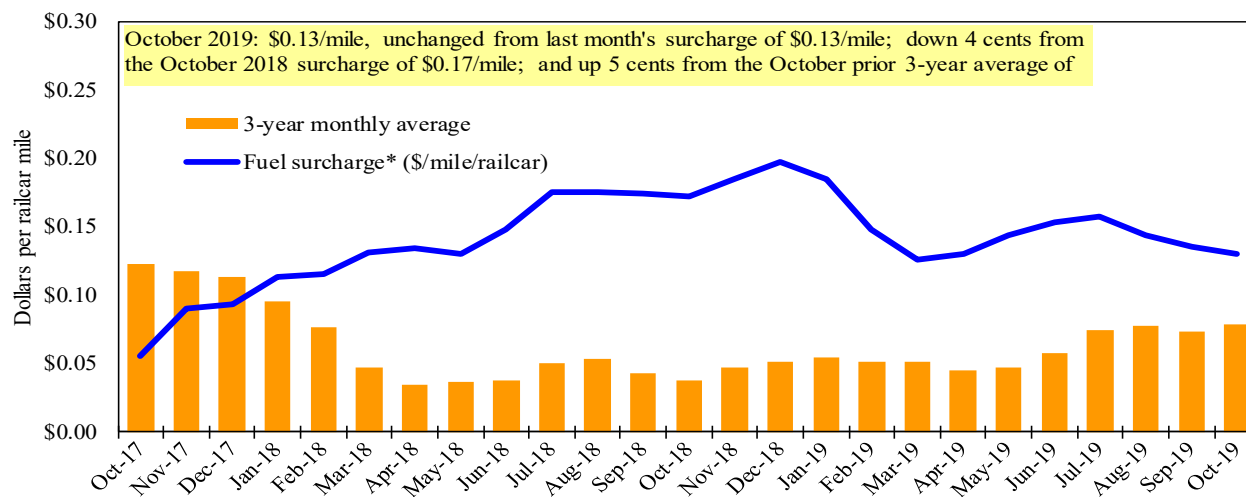
³Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

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

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

Figure 7

Railroad fuel surcharges, North American weighted average¹



¹ Weighted by each Class I railroad's proportion of grain traffic for the prior year.

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

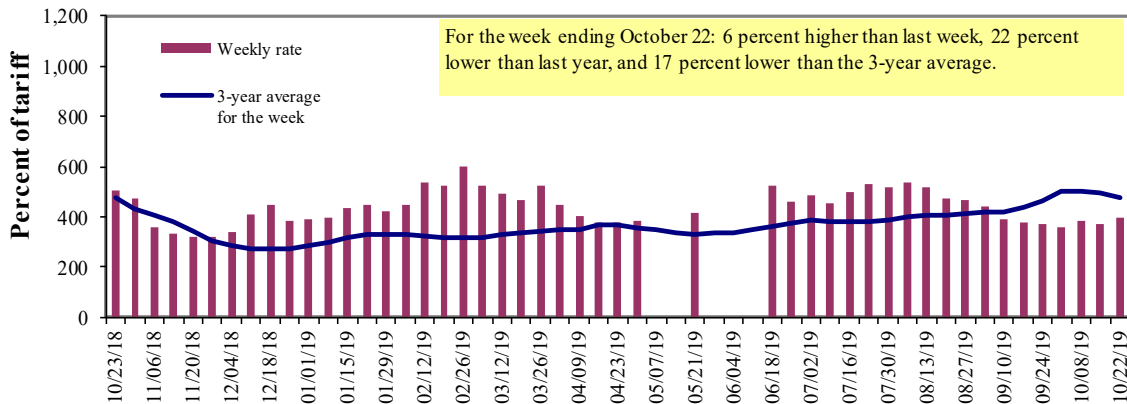
**CSX strike price changed from \$2.00/gal. to \$3.75/gal. starting January 1, 2015.

Sources: 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}



¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-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
Rate¹	10/22/2019	375	392	394	280	326	326	239
	10/15/2019	374	395	370	315	363	363	299
\$/ton	10/22/2019	23.21	20.85	18.28	11.17	15.29	13.17	7.50
	10/15/2019	23.15	21.01	17.17	12.57	17.02	14.67	9.39
Current week % change from the same week:								
	Last year	-30	-25	-22	-37	-28	-28	-40
	3-year avg. ²	-27	-20	-17	-33	-33	-33	-42
Rate¹	November	377	377	371	269	314	314	235
	January	-	-	377	265	288	288	235

¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-week moving average; ton = 2,000 pounds; "-" not available due to closure

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

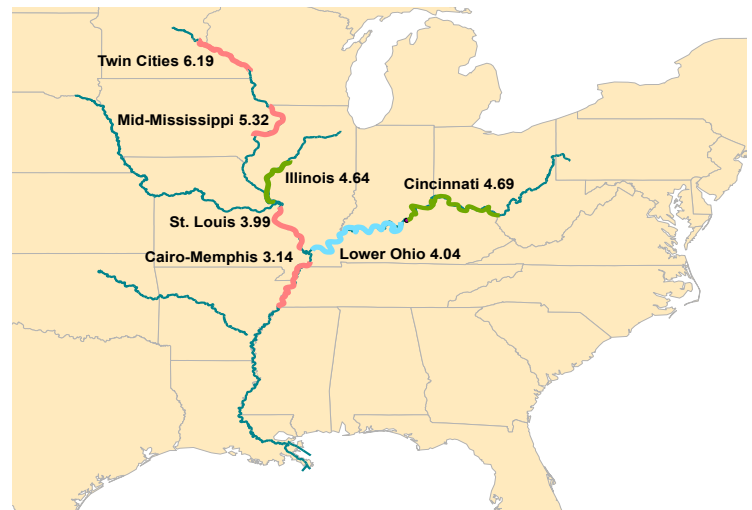
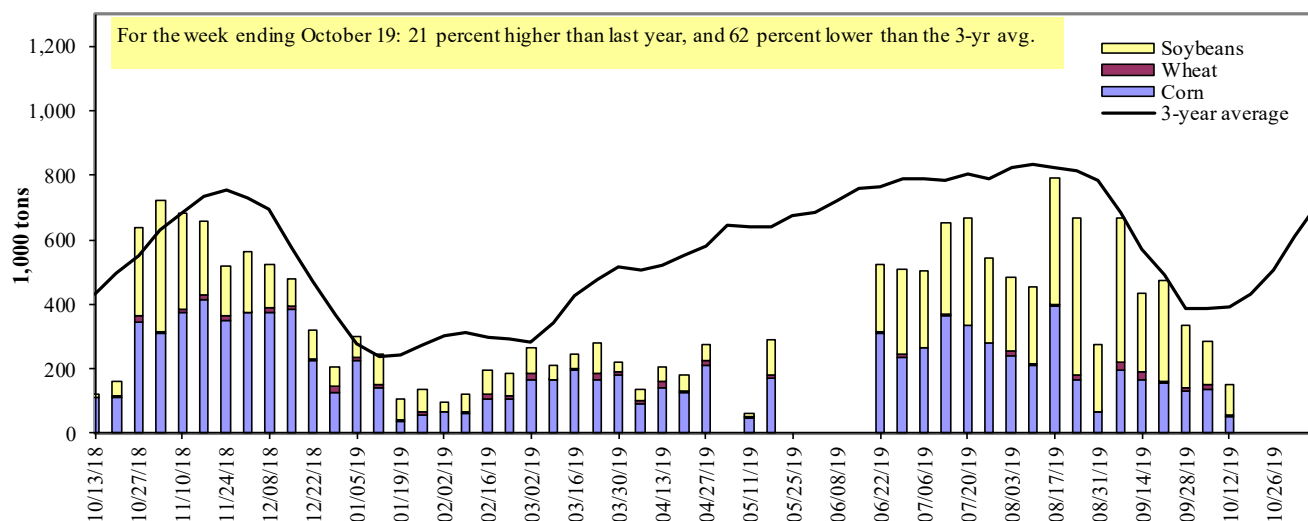


Figure 10

Barge Movements on the Mississippi River¹ (Locks 27 - Granite City, IL)

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

Source: U.S. Army Corps of Engineers.

Table 10

Barge grain movements (1,000 tons)

For the week ending 10/19/2019	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	39	11	90	0	140
Winfield, MO (L25)	37	2	57	2	97
Alton, IL (L26)	52	2	90	2	145
Granite City, IL (L27)	54	2	93	2	150
Illinois River (LAGRANGE)	11	0	28	0	39
Ohio River (OLMSTED)	75	2	47	0	124
Arkansas River (L1)	0	13	24	0	36
Weekly total - 2019	129	16	164	2	310
Weekly total - 2018	177	6	100	3	286
2019 YTD ¹	9,929	1,364	9,994	136	21,423
2018 YTD ¹	19,284	1,427	9,679	92	30,482
2019 as % of 2018 YTD	51	96	103	147	70
Last 4 weeks as % of 2018 ²	60	134	175	364	98
Total 2018	23,349	1,674	12,819	133	37,975

¹ Weekly total, YTD (year-to-date), and calendar year total include MS/27, OH/OLMSTED, and AR/1; Other refers to oats, barley, sorghum, and rye. L (as in "L15") refers to a lock or lock and dam facility.

² As a percent of same period in 2018.

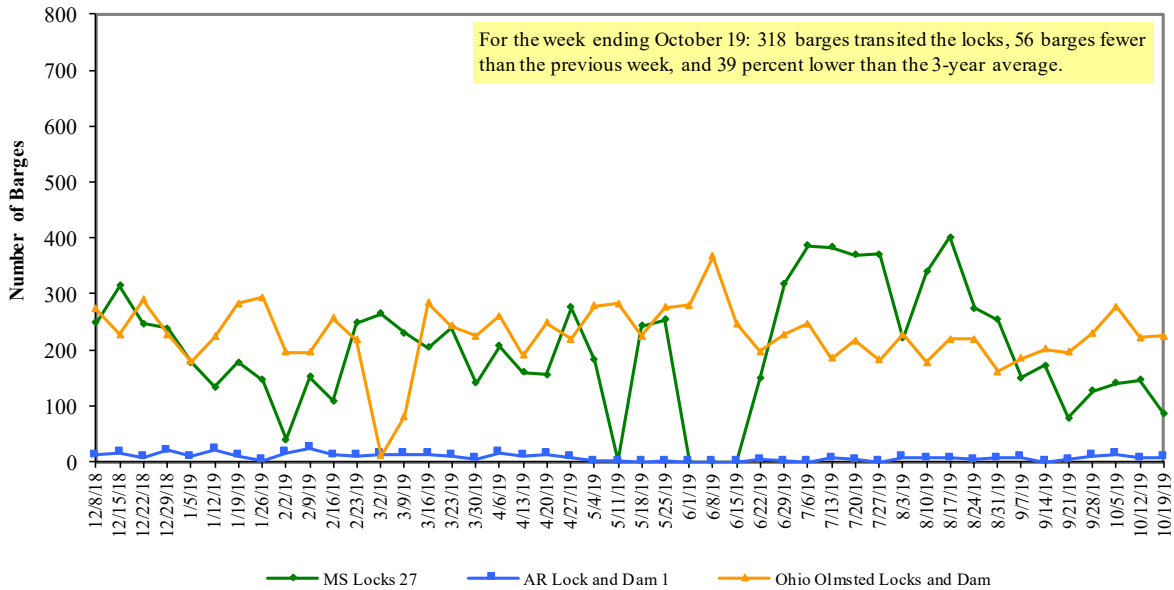
Note: 1. Total may not add exactly, due to rounding.

2. Starting from 11/24/2018, weekly movement through Ohio 52 is replaced by Olmsted.

Source: U.S. Army Corps of Engineers.

Figure 11

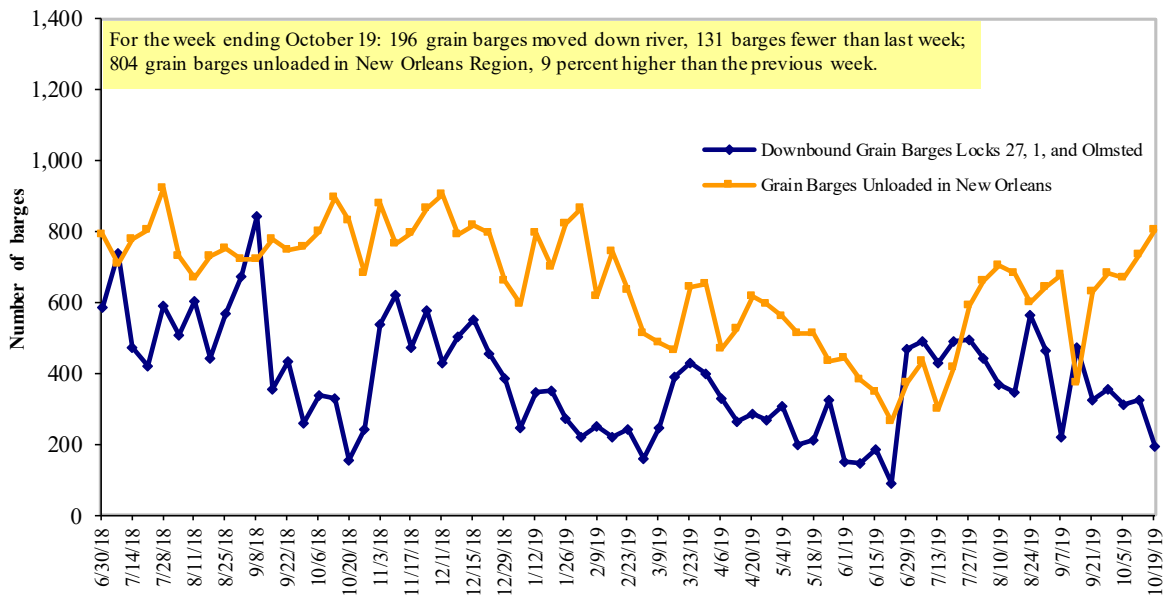
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



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 10/21/2019 (U.S. \$/gallon)

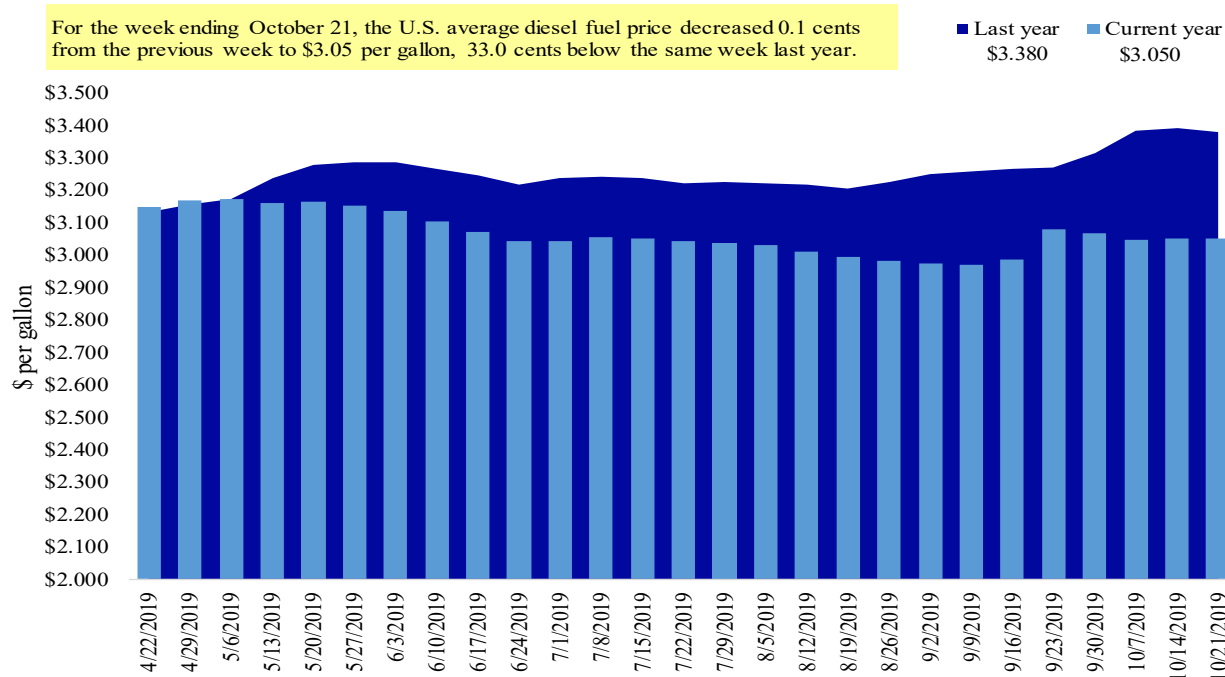
Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	3.045	0.001	-0.324
	New England	3.045	0.003	-0.323
	Central Atlantic	3.235	0.008	-0.298
	Lower Atlantic	2.916	-0.004	-0.338
II	Midwest	2.957	-0.010	-0.376
III	Gulf Coast	2.802	-0.003	-0.350
IV	Rocky Mountain	3.044	0.003	-0.364
	West Coast	3.675	0.022	-0.196
V	West Coast less California	3.290	0.050	-0.297
	California	3.980	-0.002	-0.116
Total	U.S.	3.050	-0.001	-0.330

¹Diesel 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 tons)

For the week ending	Wheat						Corn	Soybeans	Total
	HRW	SRW	HRS	SWW	DUR	All wheat			
Export balances¹									
10/10/2019	1,297	590	1,302	1,011	185	4,385	7,727	13,004	25,115
This week year ago	1,310	612	1,506	1,071	123	4,621	13,811	15,779	34,211
Cumulative exports-marketing year²									
2019/20 YTD	3,896	1,138	2,472	1,618	312	9,437	2,638	4,984	17,059
2018/19 YTD	2,100	885	2,272	1,990	191	7,438	7,277	4,962	19,677
YTD 2019/20 as % of 2018/19	186	129	109	81	164	127	36	100	87
Last 4 wks as % of same period 2018/19	99	100	92	93	179	98	57	74	71
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.

Source: USDA, Foreign Agricultural Service.

Table 13

Top 5 importers¹ of U.S. corn

For the week ending 10/10/2019	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	5,465	6,625	(18)	14,659
Japan	1,441	3,327	(57)	11,955
Korea	71	1,945	(96)	4,977
Colombia	481	770	(38)	4,692
Peru	0	753	(100)	2,808
Top 5 Importers	7,457	13,421	(44)	39,091
Total U.S. corn export sales	10,365	21,088	(51)	54,024
% of projected exports	21%	40%		
Change from prior week ²	369	382		
Top 5 importers' share of U.S. corn export sales	72%	64%		72%
USDA forecast, October 2019	48,346	52,545	(8)	
Corn use for ethanol USDA forecast, October 2019	137,160	136,551	0	

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 (carryover plus accumulated export; yr. = year; avg. = average).

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

Source: USDA, Foreign Agricultural Service.

Table 14

Top 5 importers¹ of U.S. soybeans

For the week ending 10/10/2019	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 -			- 1,000 mt -
China	5,641	1,087	419	25,733
Mexico	2,312	3,165	(27)	4,271
Indonesia	438	685	(36)	2,386
Japan	669	682	(2)	2,243
Egypt	680	489	39	1,983
Top 5 importers	9,740	6,107	60	36,616
Total U.S. soybean export sales	17,988	20,741	(13)	53,746
% of projected exports	37%	44%		
change from prior week ²	1,601	192		
Top 5 importers' share of U.S. soybean export sales	54%	29%		68%
USDA forecast, October 2019	48,365	47,629	102	

¹Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2018/19 ; marketing year (MY) = Sep 1 - Aug 31.

²Cumulative 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 revisions from previous week's outstanding sales and/or accumulated sales.

³FAS marketing year ranking reports (carryover plus accumulated export; yr. = year; avg. = average).

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

Source: USDA, Foreign Agricultural Service.

Table 15

Top 10 importers¹ of all U.S. wheat

For the week ending 10/10/2019	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 -			- 1,000 mt -
Philippines	1,608	1,804	(11)	3,047
Mexico	2,089	1,395	50	3,034
Japan	1,360	1,441	(6)	2,695
Nigeria	936	533	76	1,564
Indonesia	304	335	(9)	1,381
Korea	825	852	(3)	1,355
Taiwan	677	585	16	1,164
Egypt	101	0	n/a	821
Thailand	418	537	(22)	747
Iraq	262	362	(27)	574
Top 10 importers	8,581	7,843	9	16,382
Total U.S. wheat export sales	13,822	12,059	15	24,388
% of projected exports	53%	47%		
change from prior week ²	395	463		
Top 10 importers' share of U.S. wheat export sales	62%	65%		67%
USDA forecast, October 2019	25,886	25,504	1	

¹Based on USDA, Foreign Agricultural Service(FAS) marketing year ranking reports for 2018/19; marketing year (MY) = Jun 1 - May 31.

²Cumulative 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.

Note:(n) indicates negative number; mt = metric ton; yr. = year; avg.= average.

³ FAS marketing year final reports .

Source: USDA, Foreign Agricultural Service.

Table 16

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

Port regions	For the week ending 10/17/19	Previous week*	Current week as % of previous	2019 YTD*	2018 YTD*	2019 YTD as % of 2018 YTD	Last 4 weeks as % of:		2018 total*
							Last year	Prior 3-yr. avg.	
Pacific Northwest									
Wheat	393	349	113	11,278	10,510	107	113	139	13,315
Corn	0	3	0	6,921	16,971	41	4	7	20,024
Soybeans	244	69	355	7,968	6,761	118	140	30	7,719
Total	638	420	152	26,167	34,242	76	70	56	41,058
Mississippi Gulf									
Wheat	33	45	73	3,906	3,227	121	84	111	3,896
Corn	382	351	109	17,751	28,602	62	44	55	33,735
Soybeans	972	804	121	22,172	20,374	109	133	88	28,124
Total	1,388	1,201	116	43,829	52,203	84	86	77	65,755
Texas Gulf									
Wheat	115	77	150	5,398	2,512	215	168	74	3,198
Corn	0	0	n/a	577	665	87	31	16	730
Soybeans	0	0	n/a	2	69	2	n/a	0	69
Total	115	77	150	5,977	3,245	184	143	57	3,997
Interior									
Wheat	53	17	304	1,587	1,322	120	139	135	1,614
Corn	139	118	117	6,145	7,180	86	75	86	8,650
Soybeans	108	127	85	5,542	5,425	102	98	104	6,729
Total	299	262	114	13,274	13,927	95	89	98	16,993
Great Lakes									
Wheat	1	36	1	904	662	137	306	194	894
Corn	0	0	n/a	0	383	0	0	0	404
Soybeans	0	0	n/a	473	815	58	3	4	1,192
Total	1	36	1	1,377	1,860	74	46	53	2,491
Atlantic									
Wheat	0	0	n/a	37	69	54	95	4	69
Corn	1	0	n/a	99	110	90	47	7	138
Soybeans	39	5	759	1,040	1,535	68	51	53	2,047
Total	41	5	786	1,176	1,714	69	51	35	2,253
U.S. total from ports*									
Wheat	595	524	114	23,111	18,301	126	122	120	22,986
Corn	522	472	111	31,493	53,912	58	39	50	63,682
Soybeans	1,364	1,005	136	37,197	34,978	106	118	70	45,879
Total	2,481	2,001	124	91,801	107,191	86	82	71	132,547

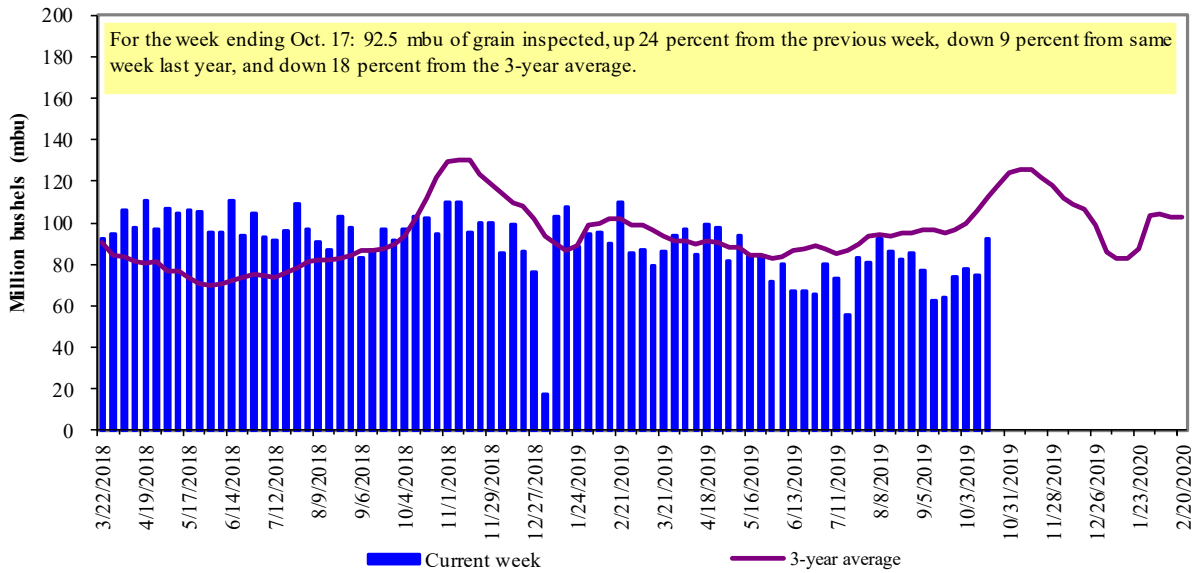
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

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)

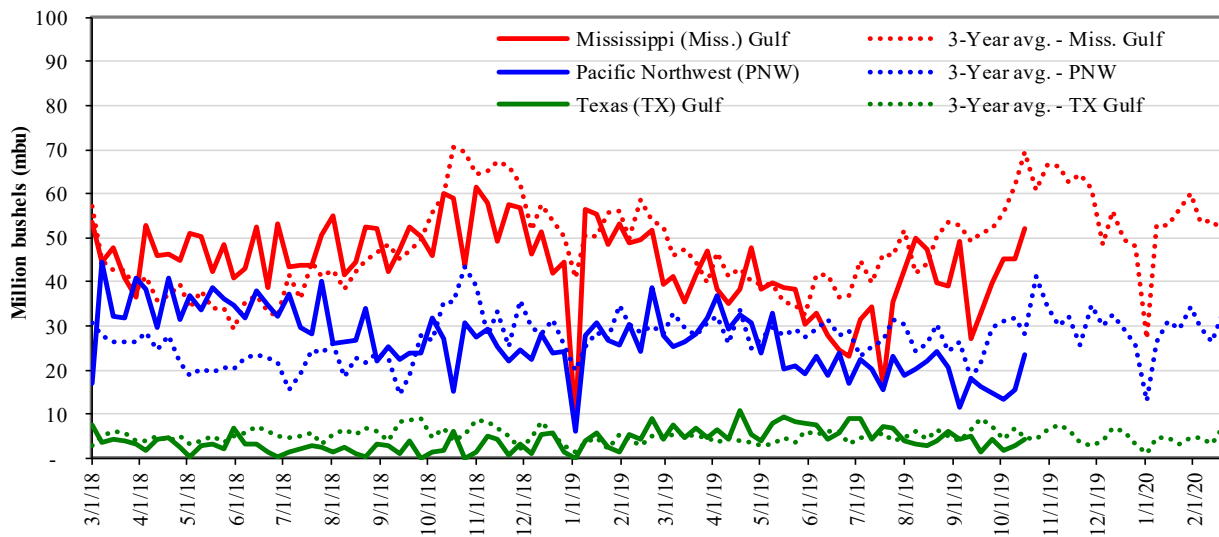


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

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



Week ending 10/17/19 inspections (mbu):		Percent change from:			
		MS Gulf	TX Gulf	U.S. Gulf	PNW
MS Gulf:	52.0	Last wk: up 15	up 50	up 17	up 52
PNW:	23.4	Last Year (same wk): down 12	down 29	down 14	up 55
TX Gulf:	4.2	3-yr avg.(4-wk. mov. Avg): down 13	down 26	down 14	down 22

Source: USDA, Federal Grain Inspection Service.

Ocean Transportation

Table 17

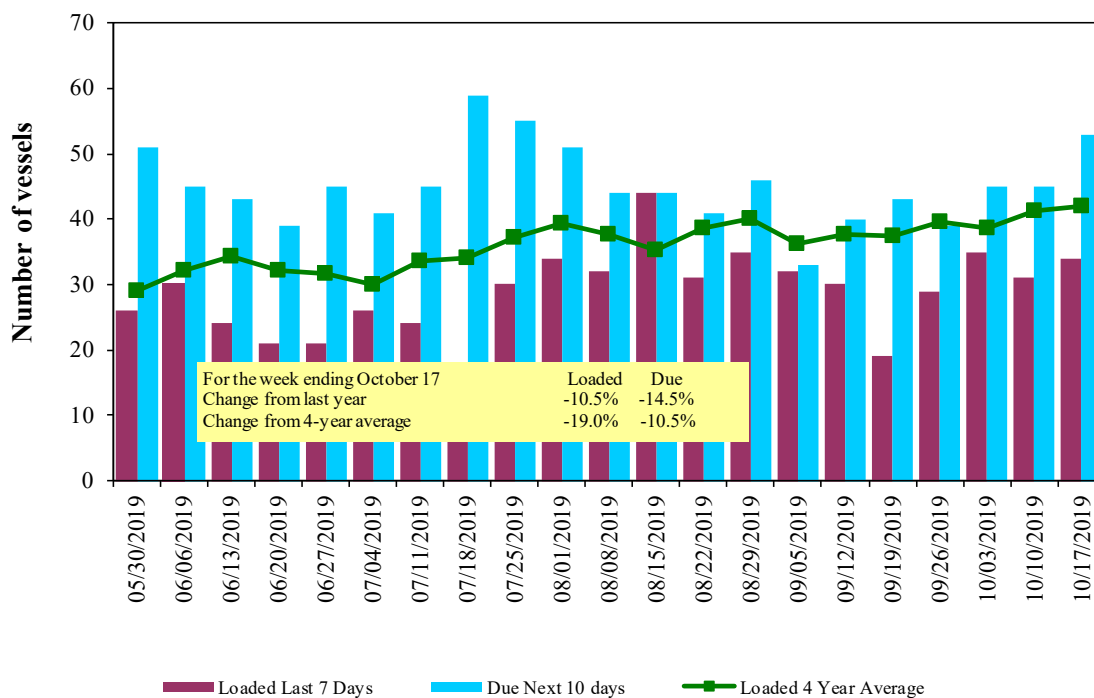
Weekly port region grain ocean vessel activity (number of vessels)

Date	Gulf			Pacific Northwest
	In port	Loaded 7-days	Due next 10-days	In port
10/17/2019	33	34	53	16
10/10/2019	37	31	45	15
2018 range	(23...88)	(24...41)	(38...67)	(4...30)
2018 average	40	34	54	17

Source: USDA, Agricultural Marketing Service.

Figure 16

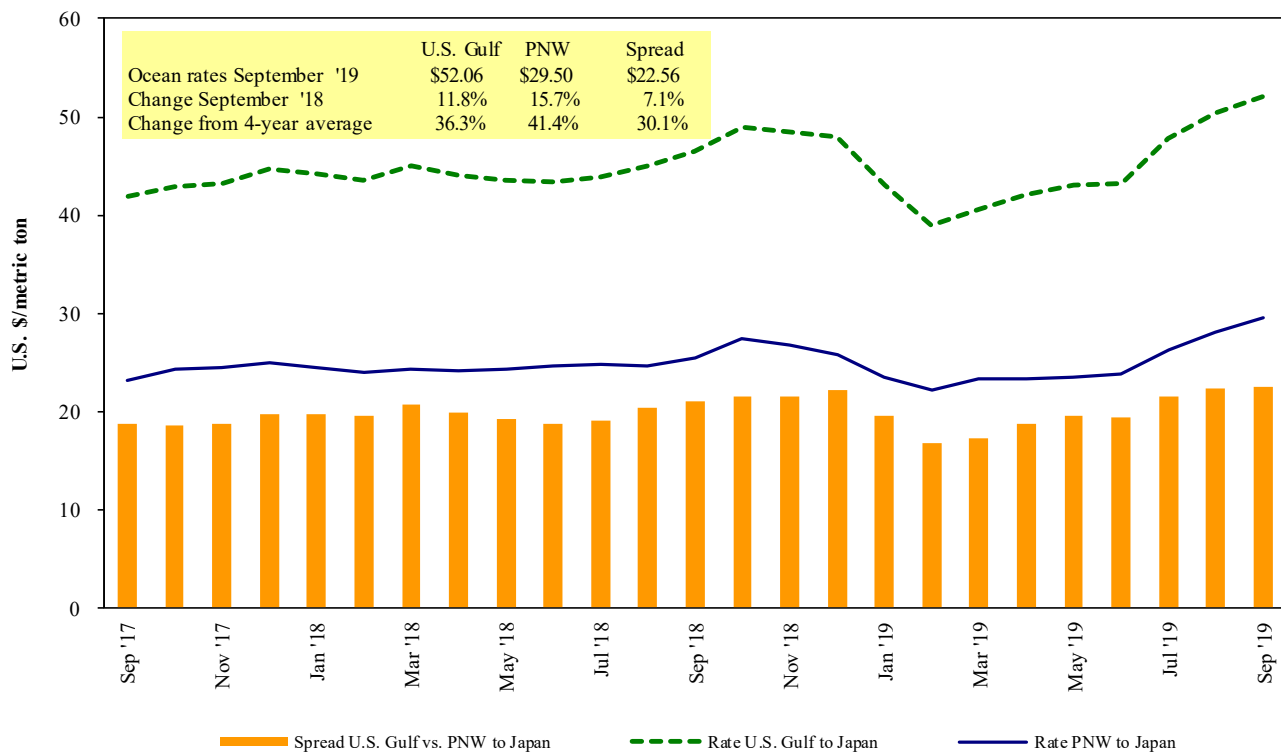
U.S. Gulf¹ vessel loading activity



¹U.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.

Source: O'Neil Commodity Consulting.

Table 18

Ocean freight rates for selected shipments, week ending 10/19/2019

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	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
Ukraine	Egypt Med	Heavy Grain	Oct 19/23	60,000	13.50

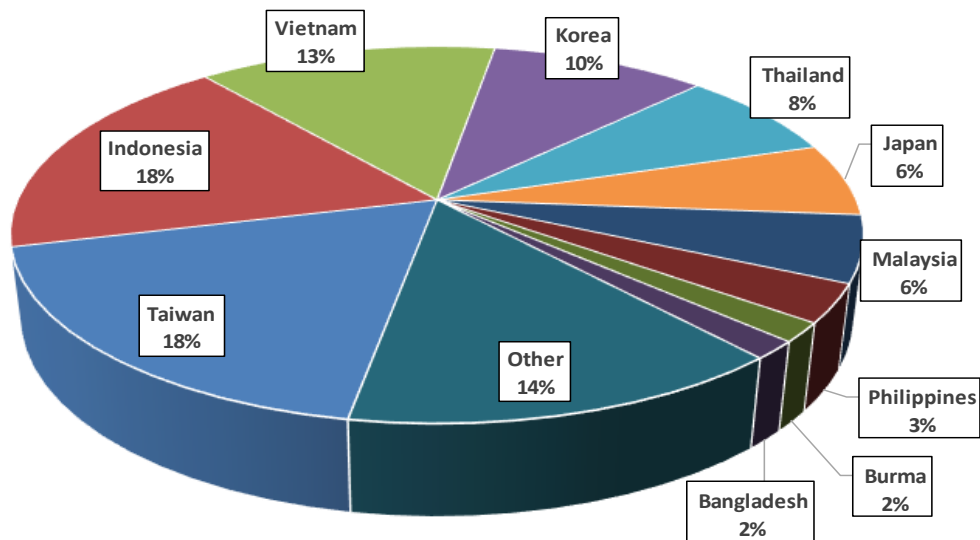
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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.

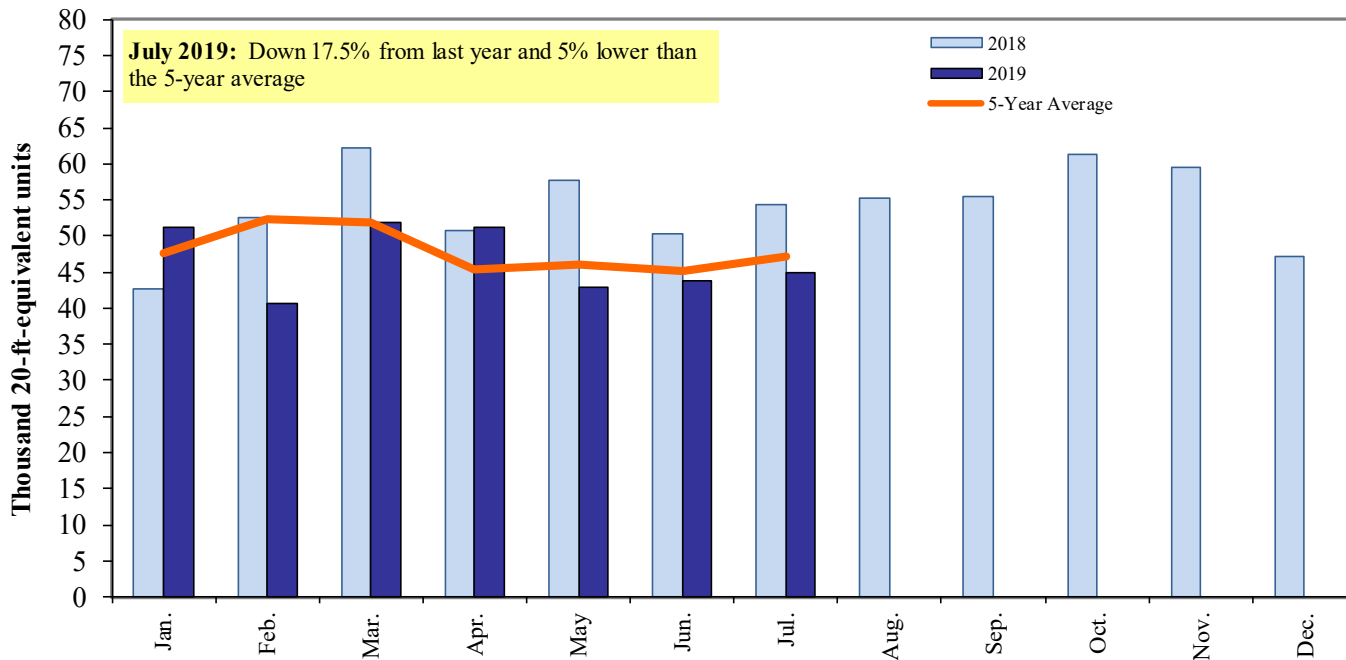
Figure 18
Top 10 destination markets for U.S. containerized grain exports, Jan-Jul 2019



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.

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