



Grain Transportation Report

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

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August 15, 2019

WEEKLY HIGHLIGHTS

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Panama Canal Proposes Toll Structure Modifications and Collects Industry Input

On July 24, 2019, the Panama Canal Authority held a public hearing on its proposed toll structure modifications set for January 1, 2020. After consideration and implementation of some of the suggestions presented in the comments, the Panama Canal Board of Directors will approve the proposal and present it to the Cabinet Council of the Republic of Panama for official approval. The proposal impacts all segments including dry bulk, passenger, containership, vehicle carrier, tanker and RoRo (roll on roll off) vessels. The proposed modifications are designed to increase transparency and flexibility, and to ensure the waterway remains competitive. For details, see https://www.pancanal.com/common/maritime/advisories/2019/a-30-2019.pdf

Panama Canal Lock Maintenance Tentatively Scheduled, Reduces Transit Capacity

The East Lane of the Gatun Panamax Locks on the Panama Canal will be closed for 10 hours, for maintenance and repair work, on August 20, 2019. The estimated transit capacity of the Canal due to the maintenance work is 28–30 vessels per day, rather than the normal transit capacity of 32–34 vessels, depending on vessel mix and other factors. At this time, no major delays are anticipated.

Wheat Drives Increase in Total Grain Inspected for Export

For the week ending August 8, total inspections of grain (corn, wheat, and soybeans) for export from all major U.S. export regions reached 2.41 million metric tons (mmt). This amount is up 12 percent from the previous week, unchanged from last year, and 4 percent below the 3-year average. The increase in inspections was driven by a 66 percent jump in wheat inspections. Wheat shipments increased primarily to Asian destinations. Week-to-week inspections of corn increased 9 percent, but soybean inspections decreased 9 percent for the same period. Inspections of grain in the Mississippi Gulf increased 17 percent from the previous week, and inspections in the Pacific Northwest (PNW) increased 10 percent.

Lower Production and Exports Forecasted by USDA in 2019/20

USDA's August *World Agricultural Supply and Demand Estimates (WASDE)* and *Crop Production* forecasts U.S. farmers will produce 19.6 billion bushels of corn, soybeans, and wheat in 2019/20. This is less than 1 percent below the previous month's projection, but 6 percent lower than last year. USDA projects 2 percent less total grain supplies (including beginning stocks, production, and imports), which could mean less demand for grain transportation in the new marketing year. States with the largest drop in production from last year in million bushels (mbu) are: Illinois (-576 mbu), North Dakota (-380 mbu), Ohio (-325 mbu), and South Dakota (-321 mbu). USDA expects domestic use of corn, soybeans, and wheat would be on-par with last year but expects exports to fall 4 percent.

Snapshots by Sector

Export Sales

For the week ending August 1, **unshipped balances** of wheat, corn, and soybeans totaled 15.3 mmt. This indicates a 10 percent decrease in outstanding sales, compared to the same time last year. Net **corn export sales** reached .043 mmt, down 70 percent from the previous week. Net **soybean export sales** were .102 mmt, down 29 percent from the past week. Net weekly **wheat export sales** reached .488 mmt, up 27 percent from the previous week.

Rail

U.S. Class I railroads originated 22,607 **grain carloads** for the week ending August 3. This is a 1 percent increase from the previous week, 10 percent less than last year, and 3 percent lower than the 3-year average.

Average August shuttle **secondary railcar bids/offers** (per car) were \$150 below tariff for the week ending August 8. This is \$54 more than last week and \$56 lower than last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending August 10, **barge grain movements** totaled 567,094 tons. This is a 16 percent decrease from the previous week and 40 percent less than the same period last year.

For the week ending August 10, 368 grain barges **moved down river**. This is 74 fewer barges than the previous week. There were 705 grain barges **unloaded in New Orleans**, 7 percent more than the previous week.

Ocean

For the week ending August 8, 32 occan-going grain vessels were loaded in the Gulf. This is 3 percent more than the same period last year. Forty-four vessels are expected to be loaded within the next 10 days. This is 20 percent fewer than the same period last year.

As of August 8, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$49.00. This is 1 percent less than the previous week. The rate from the PNW to Japan was \$27.00 per mt, 2 percent more than the previous week.

Fue

For the week ending August 12, the U.S. average diesel fuel price decreased 2.1 cents from the previous week, to \$3.011 per gallon. This price is 20.6 cents less than the same week last year.

Feature Article/Calendar

Transportation Costs to Mexico Remained Relatively Stable, but Landed Costs Mixed

Compared to the previous quarter, the transportation costs of shipping bulk grains (corn, soybeans and wheat) to Mexico remained relatively stable during the second quarter of 2019. The transportation costs of shipping grains to Mexico, through both water and land routes, fluctuated within a 1 percent range. While the costs of shipping seaborne corn and soybeans fell 1 percent, the costs of shipping seaborne wheat and all grains by the land route rose 1 percent (see table). The changes in landed costs were mixed, as costs for corn increased while those for soybeans and wheat decreased.

Quarterly costs of transporting U.S. grain to Veracruz and Guadalajara, Mexico										
			route (to V	•			Land ro	•	<u>adalajara)</u>	
			metric to			\$/metric ton				
	2018	2019	2019		change	2018	2019	2019		t change
	2 nd qtr.	1 st qtr.	2 nd qtr.	Yr. to Yr.	Qtr. to Qtr.	2 nd qtr.	1 st qtr.	2 nd qtr.	Yr. to Yr.	Qtr. to Qtr.
Origin			IL		<u>Co</u>	<u>rn</u>		IA		
Truck	12.06	8.78	10.98	- 9.0	25.1	4.66	4.37	4.38	-6.0	0.2
Rail ¹	12.00	0.70	10.50	-9.0	20.1	87.96	91.00	91.96	4.5	1.1
Barge	26.29	24.50	21.74	-17.3	-11.3	67.90	91.00	91.90	4.5	1.1
Ocean ²	14.07	13.89	14.01	-0.4	0.9					
Total transportation cost ³						00.00	05.07	00.04	4.0	4.0
'	52.42	47.17	46.73	-10.9	-0.9	92.62	95.37	96.34	4.0	1.0
Farm Value ⁴	143.69	141.20	145.79	1.5	3.3	139.49	139.49	145.01	4.0	4.0
Landed Cost ⁵	196.11	188.37	192.52	-1.8	2.2	232.11	234.86	241.35	4.0	2.8
Transport % of landed cost	27	25	24			40	41	40		
					<u>Soyb</u>	eans				
Origin			IL					NE		
Truck	12.06	8.78	10.98	- 9.0	25.1	4.66	4.37	4.38	-6.0	0.2
Rail						91.88	94.21	95.11	3.5	1.0
Barge	26.29	24.50	21.74	-17.3	-11.3					
Ocean	14.07	13.89	14.01	-0.4	0.9					
Total transportation cost	52.42	47.17	46.73	-10.9	-0.9	96.54	98.58	99.49	3.1	0.9
Farm Value	364.86	321.87	308.77	-15.4	-4.1	352.86	302.89	291.26	-17.5	-3.8
Landed Cost	417.28	369.04	355.50	-14.8	-3.7	449.40	401.47	390.75	-13.1	-2.7
Transport % of landed cost	13	13	13			21	25	25		
					<u>Wh</u>	<u>eat</u>				
Origin			KS					KS		
Truck	4.66	4.37	4.38	-6.0	0.2	4.66	4.37	4.38	-6.0	0.2
Rail	41.83	42.66	42.88	2.5	0.5	78.02	79.65	80.31	2.9	8.0
Ocean	13.97	13.89	14.01	0.3	0.9					
Total transportation cost	60.46	60.92	61.27	1.3	0.6	82.68	84.02	84.69	2.4	0.8
Farm Value	175.02	181.39	167.67	-4.2	-7.6	175.02	181.39	167.67	-4.2	-7.6
Landed Cost	235.48	242.31	228.94	- 2.8	-5.5	257.70	265.41	252.36	-2.1	-4.9
Transport % of landed cost	26	25	27			32	32	34		

¹Rail rates include U.S. and Mexico portions of the movement. Mexico rail rates are estimated based on actual quoted market rates.

BNSF and Union Pacific quoted rail tariff rates are through rates for shuttle trains. Rail rates include fuel surcharges, but do not include the cost of purchasing empty rail cars in the secondary market, which could exceed the rail tariff rate plus fuel surcharge shown in the table.

Along the water route, barge rates fell by 11 percent due to reduced demand from persistent flooding and navigation disruptions during the quarter (see <u>April 4, 2019</u> and <u>June 27, 2019</u> *Grain Transportation Reports (GTR)*). Compared to quarter 1, truck rates for waterborne corn and soybeans increased 25 percent while remaining relatively unchanged for seaborne wheat and grains transported through the land route, during the second quarter. Rail tariff rates also remained relatively stable during the quarter. Although significant effort was put forth and considerable progress was made in restoring services, railroads were affected by inclement weather and flood conditions during the quarter (<u>June 27, 2019</u> *GTR*).

²Source: O'Neil Commodity Consulting

³Transportation costs for Kansas wheat transported via water route were revised from previous estimates

⁴Source: USDA/NASS

⁵Landed cost is total transportation cost plus farm value

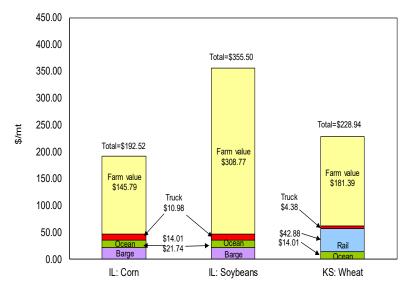
Compared to the previous quarter, there was an increase in the farm value of corn, which pushed up landed costs during the second quarter. During this same period, the farm value for soybeans and wheat decreased, resulting in lower landed costs. Year-to-year landed costs were down for all grains shipped

through the water route, as well as for soybeans and wheat transported through the land route. However, the landed cost for corn transported through the land route increased from last year. The landed costs for the water route ranged from \$193 to \$356 per metric ton (mt) (see table and figure 1), and \$241 to \$391 per mt (see table and figure 2) for the land route. The transportation share of the landed costs fell for corn, was unchanged for soybeans, and increased for wheat. The transportation share of the landed costs ranged from 13 to 27 percent for the water route and 25 to 40 percent for the land route (see table).

More corn and wheat, but less soybeans, were inspected for export to Mexico during the second quarter of 2019, compared to the previous quarter (USDA's grain inspection data).

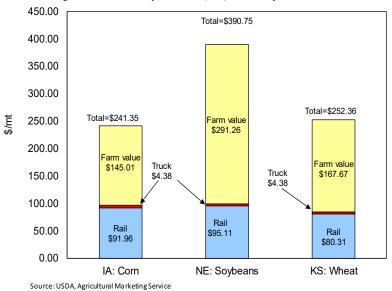
However, less corn and soybeans were inspected for export to Mexico, compared to the same period last year. During the second quarter of 2019, 3.39 million metric tons (mmt) of corn, .87 mmt of wheat, and 1.03 mmt of soybeans were inspected for export to Mexico. In contrast, inspections of corn, wheat and soybeans for export to Mexico were 3.06 mmt, .70 mmt and 1.13 mmt, respectively, during the first quarter of 2019. During the second quarter of 2019, total inspections of corn and wheat for export to Mexico were higher than in the first quarter by 11 and 24 percent, respectively. However, soybeans inspected for export to Mexico were lower by 8 percent, compared to the first

Figure 1. Water route shipment costs (\$/mt) to Veracruz, Mexico



Source: USDA, Agricultural Marketing Service

Figure 2. Land route shipment costs (\$/mt) to Guadalajara, Mexico



quarter. Compared to the same period last year, wheat inspected for export to Mexico was 51 percent more during the second quarter, while inspections of corn and soybeans were 14 and 12 percent lower, respectively. Lower transportation costs help boost the competitiveness of U.S. grain exports to Mexico.

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Grain Transportation Indicators

Table 1 **Grain Transport Cost Indicators**

1

	Truck	Ra	il	Barge	0	cean
For the week ending		Unit Train	Shuttle		Gulf	Pacific
08/14/19	202	n/a	214	278	219	191
08/07/19	203	n/a	212	299	221	195

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)

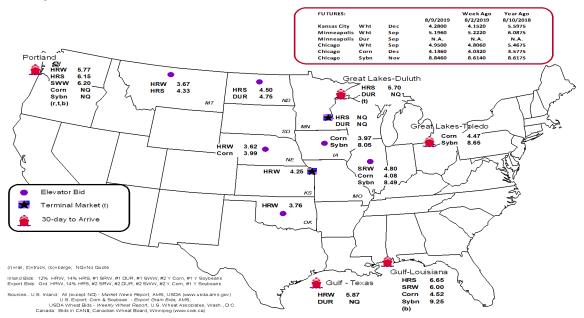
Commodity	OriginDestination	8/9/2019	8/2/2019
Corn	ILGulf	-0.44	-0.46
Corn	NEGulf	-0.53	-0.57
Soybean	IAGulf	-1.20	-1.20
HRW	KSGulf	-1.62	-1.57
HRS	NDPortland	-1.65	-1.70

Note: nq = no quote; n/a = not available

Source: Transportation & Marketing Program/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1 Grain Bid Summary



Rail Transportation

Table 3

Rail Deliveries to Port (carloads)¹

For the Week Ending	Mississippi Gulf	Texas Gulf	Pacific Northwest	Atlantic & East Gulf	Total	Week ending	Cross-Border Mexico ³
For the week Ending	Guii	Texas Guii	Northwest	Last Guii	Total	week ending	MEXICO
8/07/2019 ^p	799	1,145	3,919	456	6,319	8/3/2019	2,759
7/31/2019 ^r	691	849	4,356	494	6,390	7/27/2019	2,635
2019 YTD ^r	31,003	37,202	162,772	11,830	242,807	2019 YTD	74,760
2018 YTD ^r	12,306	34,684	211,343	13,702	272,035	2018 YTD	73,226
2019 YTD as % of 2018 YTD	252	107	77	86	89	% change YTD	102
Last 4 weeks as % of 2018 ²	295	165	62	122	81	Last 4wks % 2018	101
Last 4 weeks as % of 4-year avg. ²	197	112	82	177	98	Last 4wks % 4 yr	123
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

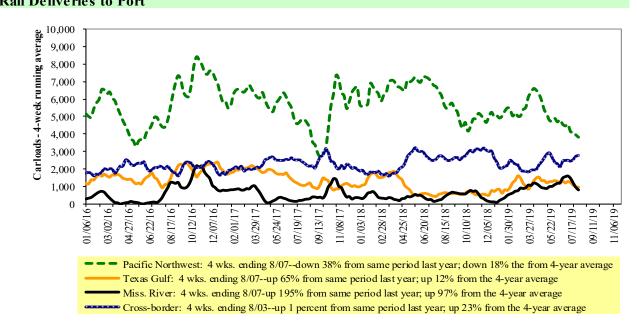
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available

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

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.

Table 4

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

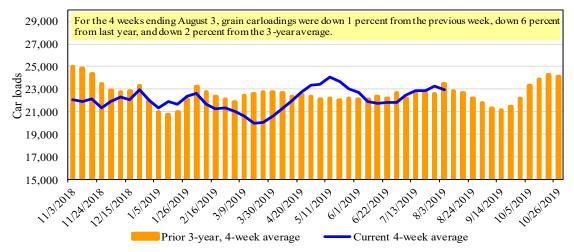
For the week ending:	E	ast		West		U.S. total	Ca	nada
8/3/2019	CSXT	NS	BNSF	KCS	UP	U.S. total	CN	CP
This week	2,011	3,257	10,671	1,031	5,637	22,607	2,510	5,150
This week last year	2,135	3,222	13,364	926	5,493	25,140	4,266	5,160
2019 YTD	58,497	88,780	343,460	34,865	161,066	686,668	132,193	136,175
2018 YTD	60,449	79,882	388,445	29,965	162,533	721,274	116,362	143,972
2019 YTD as % of 2018 YTD	97	111	88	116	99	95	114	95
Last 4 weeks as % of 2018*	80	104	85	115	112	94	91	96
Last 4 weeks as % of 3-yr avg.**	104	105	90	128	106	98	93	100
Total 2018	98,978	133,270	635,458	48,638	267,713	1,184,057	211,808	244,697

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

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 (\$/car)²

Fo	r the week ending:		Delivery period						
8/8/2019		Aug-19	Aug-18	Sep-19	Sep-18	Oct-19	Oct-18	Nov-19	Nov-18
BNSF ³	COT grain units	no bid	no offer	0	115	no bid	1	no bid	3
	COT grain single-car ⁵	no offer	no offer	0	162	20	135	30	85
UP ⁴	GCAS/Region 1	no offer	no offer	no offer	no offer	no offer	no bid	n/a	n/a
	GCAS/Region 2	no offer	no offer	no bid	no offer	no bid	no offer	n/a	n/a

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

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

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

 5R ange is shown because average is not available. Not available = n/a.

Source: Transportation & Marketing Program/AMS/USDA.

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

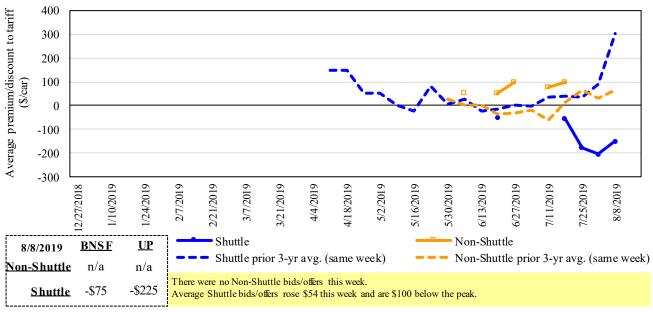
²Average premium/discount to tariff, last auction

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

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

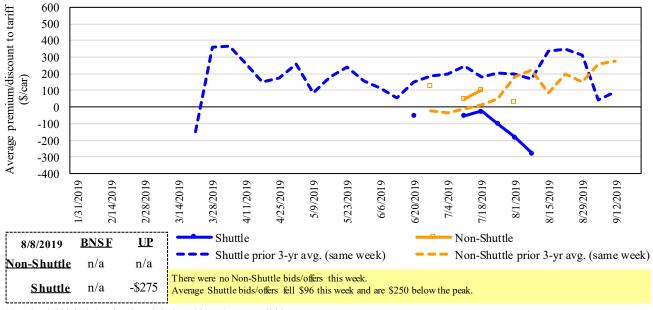
Figure 4 Bids/Offers for Railcars to be Delivered in August 2019, Secondary Market



Non-shuttle bids include unit-train and single-car bids. n/a = not available.

Source: Transportation & Marketing Program/AMS/USDA

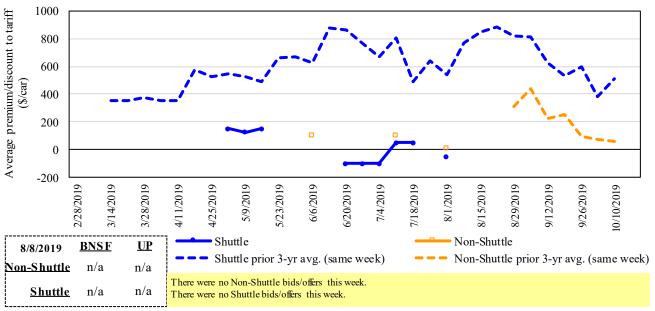
Figure 5 Bids/Offers for Railcars to be Delivered in September 2019, Secondary Market



Non-shuttle bids include unit-train and single-car bids. n/a = not available.

Source: Transportation & Marketing Program/AMS/USDA

Figure 6
Bids/Offers for Railcars to be Delivered in October 2019, Secondary Market



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:			Del	livery period		
	8/8/2019	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20
	BNSF-GF	n/a	n/a	n/a	n/a	n/a	n/a
e	Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
Non-shuttle	Change from same week 2018	n/a	n/a	n/a	n/a	n/a	n/a
on-s	UP-Pool	n/a	n/a	n/a	n/a	n/a	n/a
Ž	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
	BNSF-GF	(75)	n/a	n/a	n/a	n/a	n/a
	Change from last week	19	n/a	n/a	n/a	n/a	n/a
ttle	Change from same week 2018	(175)	n/a	n/a	n/a	n/a	n/a
Shuttle	UP-Pool	(225)	(275)	n/a	n/a	n/a	n/a
	Change from last week	89	(42)	n/a	n/a	n/a	n/a
	Change from same week 2018	63	(31)	n/a	n/a	n/a	n/a

¹Average premium/discount to tariff, \$/car-last week

Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,

 $n/a = not\ available; GF = guaranteed\ freight; P\ o\ o\ l = guaranteed\ po\ o\ l$

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

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

				Fuel			Percer
	2	3	Tariff	surcharge_	Tariff plus surc		chang
August, 2019	Origin region ³	Destination region ³	rate/car	per car	metric ton	bushel ²	Y/Y
<u>Unit train</u>							
Wheat	Wichita, KS	St. Louis, MO	\$3,983	\$101	\$40.56	\$1.10	
	Grand Forks, ND	Duluth-Superior, MN	\$4,333	\$0	\$43.03	\$1.17	
	Wichita, KS	Los Angeles, CA	\$7,240	\$0	\$71.90	\$1.96	
	Wichita, KS	New Orleans, LA	\$4,525	\$178	\$46.70	\$1.27	-
	Sioux Falls, SD	Galveston-Houston, TX	\$6,976	\$0	\$69.28	\$1.89	
	Northwest KS	Galveston-Houston, TX	\$4,801	\$195	\$49.61	\$1.35	
	Amarillo, TX	Los Angeles, CA	\$5,121	\$271	\$53.55	\$1.46	
Corn	Champaign-Urbana, IL	New Orleans, LA	\$3,800	\$201	\$39.73	\$1.01	
	Toledo, OH	Raleigh, NC	\$6,581	\$0	\$65.35	\$1.66	
	Des Moines, IA	Davenport, IA	\$2,114	\$43	\$21.42	\$0.54	
	Indianapolis, IN	Atlanta, GA	\$5,646	\$0	\$56.07	\$1.42	
	Indianapolis, IN	Knoxville, TN	\$4,704	\$0	\$46.71	\$1.19	
	Des Moines, IA	Little Rock, AR	\$3,660	\$125	\$37.59	\$0.95	
	Des Moines, IA	Los Angeles, CA	\$5,520	\$365	\$58.44	\$1.48	
Soybeans	Minneapolis, MN	New Orleans, LA	\$3,631	\$201	\$38.05	\$1.04	-
	Toledo, OH	Huntsville, AL	\$5,459	\$0	\$54.21	\$1.48	
	Indianapolis, IN	Raleigh, NC	\$6,698	\$0	\$66.51	\$1.81	
	Indianapolis, IN	Huntsville, AL	\$4,937	\$0	\$49.03	\$1.33	
	Champaign-Urbana, IL	New Orleans, LA	\$4,545	\$201	\$47.13	\$1.28	
huttle Train							
Wheat	Great Falls, MT	Portland, OR	\$4,143	\$0	\$41.14	\$1.12	
	Wichita, KS	Galveston-Houston, TX	\$4,361	\$0	\$43.31	\$1.18	
	Chicago, IL	Albany, NY	\$5,896	\$0	\$58.55	\$1.59	
	Grand Forks, ND	Portland, OR	\$5,736	\$0	\$56.96	\$1.55	
	Grand Forks, ND	Galveston-Houston, TX	\$6,121	\$0	\$60.78	\$1.65	
	Northwest KS	Portland, OR	\$6,012	\$320	\$62.88	\$1.71	
Corn	Minneapolis, MN	Portland, OR	\$5,180	\$0	\$51.44	\$1.31	
	Sioux Falls, SD	Tacoma, WA	\$5,140	\$0	\$51.04	\$1.30	
	Champaign-Urbana, IL	· ·	\$3,720	\$201	\$38.94	\$0.99	
	Lincoln, NE	Galveston-Houston, TX	\$3,880	\$0	\$38.53	\$0.98	
	Des Moines, IA	Amarillo, TX	\$4,060	\$157	\$41.88	\$1.06	
	Minneapolis, MN	Tacoma, WA	\$5,180	\$0	\$51.44	\$1.31	
	Council Bluffs, IA	Stockton, CA	\$5,000	\$0	\$49.65	\$1.26	
Soybeans	Sioux Falls, SD	Tacoma, WA	\$5,750	\$0	\$57.10	\$1.55	
,	Minneapolis, MN	Portland, OR	\$5,800	\$0	\$57.60	\$1.57	
	Fargo, ND	Tacoma, WA	\$5,650	\$0	\$56.11	\$1.53	
	Council Bluffs, IA	New Orleans, LA	\$4,775	\$232	\$49.72	\$1.35	
	Toledo, OH	Huntsville, AL	\$4,634	\$0	\$46.02	\$1.25	
	Grand Island, NE	Portland, OR	\$5,710	\$327	\$59.95	\$1.63	

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 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 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

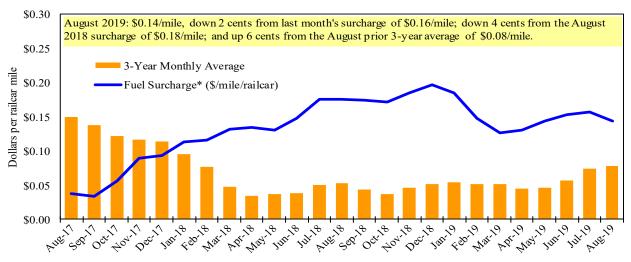
Date	: August, 2	2019		Fuel			Percent
	Origin		Tariff	surcharge	Tariff plus surc	harge per:	change ⁴
Commodity	state	Destination region	rate/car ¹	per car ²	metric ton ³	bushel ³	Y/Y
Wheat	MT	Chihuahua, CI	\$7,509	\$0	\$76.72	\$2.09	3
	OK	Cuautitlan, EM	\$6,775	\$139	\$70.65	\$1.92	0
	KS	Guadalajara, JA	\$7,534	\$596	\$83.07	\$2.26	5
	TX	Salinas Victoria, NL	\$4,329	\$85	\$45.10	\$1.23	0
Corn	IA	Guadalajara, JA	\$8,828	\$508	\$95.39	\$2.42	8
	SD	Celaya, GJ	\$8,140	\$0	\$83.17	\$2.11	6
	NE	Queretaro, QA	\$8,207	\$291	\$86.83	\$2.20	2
	SD	Salinas Victoria, NL	\$6,905	\$0	\$70.55	\$1.79	2
	MO	Tlalnepantla, EM	\$7,573	\$284	\$80.28	\$2.04	2
	SD	Torreon, CU	\$7,690	\$0	\$78.57	\$1.99	5
Soybeans	MO	Bojay (Tula), HG	\$8,497	\$480	\$91.72	\$2.49	6
	NE	Guadalajara, JA	\$9,122	\$503	\$98.34	\$2.67	7
	IA	El Castillo, JA	\$9,390	\$0	\$95.94	\$2.61	5
	KS	Torreon, CU	\$7,914	\$349	\$84.43	\$2.30	7
Sorghum	NE	Celaya, GJ	\$7,787	\$452	\$84.19	\$2.14	8
	KS	Queretaro, QA	\$8,000	\$174	\$83.52	\$2.12	2
	NE	Salinas Victoria, NL	\$6,633	\$140	\$69.20	\$1.76	2
	NE	Torreon, CU	\$7,172	\$323	\$76.58	\$1.94	6

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.

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.

 $Sources: \ www.bnsf.com, www.cn.ca, www.csr.com, www.kcsi.com, www.nscorp.com, www.uprr.com, www.kcsi.com, www.nscorp.com, www.uprr.com, www.kcsi.com, www.nscorp.com, www.nscorp.com, www.kcsi.com, ww.kcsi.com, ww.kcsi.com, w$

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

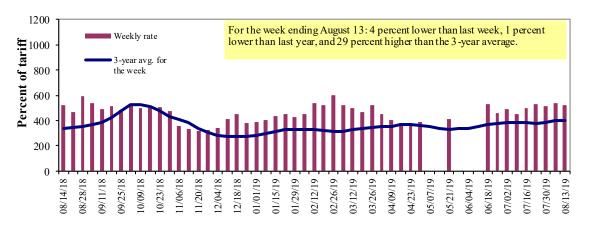
⁴Percentage change calculated using tariff rate plus fuel surchage

^{*} 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.

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: Transportation & Marketing Program/AMS/USDA

Table 9 Wooldy David Evoight Dates, Southhound Only

week	iy Barge Freig	nt Kates:	Southbound (Only				
		Twin Cities	Mid- Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo- Memphis
Rate ¹	8/13/2019	529	594	519	391	338	338	400
	8/6/2019	543	601	538	470	293	293	397
\$/ton	8/13/2019	32.75	31.60	24.08	15.60	15.85	13.66	12.56
	8/6/2019	33.61	31.97	24.96	18.75	13.74	11.84	12.47
Curren	t week % change	from the sa	me week:					
	Last year	-10	13	-1	12	-18	-18	16
	3-year avg. ²	11	44	29	38	3	3	59
Rate ¹	September	438	435	434	383	375	375	389
	November	418	417	395	316	348	348	303

¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-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:

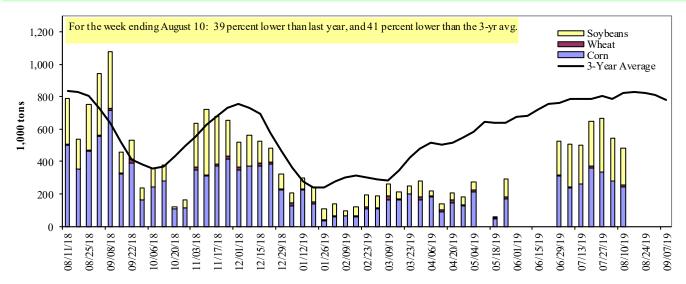
(Rate * 1976 tariff benchmark rate per ton)/100

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 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 08/10/2019	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	127	5	160	0	291
Winfield, MO (L25)	246	8	191	2	446
Alton, IL (L26)	250	19	226	2	497
Granite City, IL (L27)	241	14	229	2	487
Illinois River (LAGRANGE)	39	0	49	0	87
Ohio River (OLMSTED)	7	12	54	0	73
Arkansas River (L1)	0	0	7	0	7
Weekly total - 2019	248	27	290	2	567
Weekly total - 2018	552	51	337	3	942
2019 YTD ¹	7,898	1,117	6,645	101	15,761
2018 YTD ¹	14,970	1,138	7,409	82	23,600
2019 as % of 2018 YTD	53	98	90	123	67
Last 4 weeks as % of 2018 ²	66	55	119	160	85
Total 2018	23,349	1,674	12,819	133	37,975

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

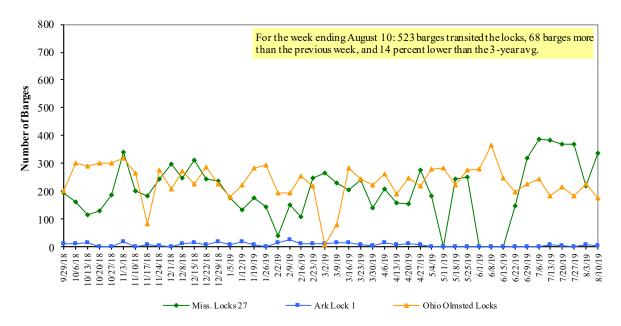
Note: 1. Total may not add exactly, due to rounding.

Source: U.S. Army Corps of Engineers

² As a percent of same period in 2018.

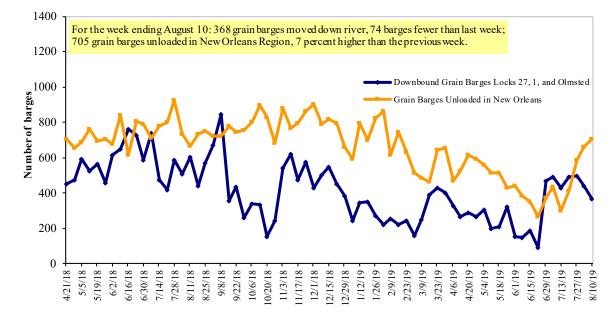
^{2.} Starting from 11/24/2018, weekly movement through Ohio 52 is replaced by Olmsted.

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.

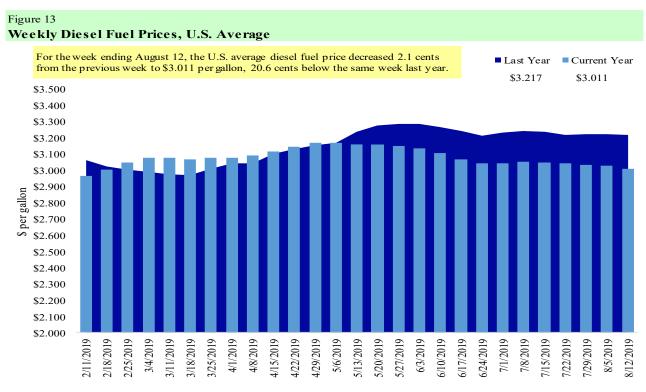
Table 11

Retail on-Highway Diesel Prices, Week Ending 8/12/2019 (US \$/gallon)

	,		Change	e from
Region	Location	Price	Week ago	Year ago
I	East Coast	3.034	-0.021	-0.185
	New England	3.073	-0.034	-0.192
	Central Atlantic	3.215	-0.018	-0.172
	Lower Atlantic	2.904	-0.019	-0.187
II	Midwest	2.924	-0.018	-0.215
III	Gulf Coast	2.763	-0.024	-0.227
IV	Rocky Mountain	2.940	-0.025	-0.418
V	West Coast	3.580	-0.025	-0.134
	West Coast less California	3.164	-0.018	-0.261
	California	3.909	-0.031	-0.033
Total	U.S.	3.011	-0.021	-0.206

¹Diesel 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)



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) Corn Soybeans **Total** For the week ending HRW SRW HRS SWW DUR All wheat Export Balances¹ 8/1/2019 1,532 780 1,578 987 325 5,202 3,245 6,869 15,316 This week year ago 926 551 1,347 1,197 151 4,172 7,730 5,171 17,073 Cumulative exports-marketing year² 2018/19 YTD 2,155 430 883 637 80 4,184 46,683 41,957 92,825 2017/18 YTD 418 1,078 917 53,305 901 28 3,342 52,191 108,838 YTD 2018/19 as % of 2017/18 239 103 82 69 288 125 89 79 85 Last 4 wks as % of same period 2017/18 171 150 104 83 182 122 53 157 102 2017/18 Total 9,150 22,419 57,209 2,343 5,689 4,854 384 56,214 135,842

7,923

2,285

4,254

26,042

41,864

51,156

119,062

2016/17 Total

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

11,096

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

Table 13 **Top 5 Importers**¹ of U.S. Corn

For the week ending 8/01/2019	,	Total Commitme	% change	Exports ³	
	2019/20	2018/19	2017/18	current MY	3-year avg
	Next MY	Current MY	Last MY	from last MY	2015-2017
		- 1,000 mt	-		
Mexico	2,183	15,512	15,161	2	13,691
Japan	536	12,700	11,500	10	11,247
Korea	0	3,697	5,838	(37)	4,754
Colombia	14	4,679	4,665	0	4,678
Peru	0	1,992	3,199	(38)	2,975
Top 5 Importers	2,732	38,579	40,363	(4)	37,344
Total US corn export sales	4,073	49,928	59,921	(17)	53,184
% of Projected	7%	93%	97%		
.Change from prior week ²	97	43	554		
Top 5 importers' share of U.S. corn					
export sales	67%	77%	67%		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.

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.

¹ Current unshipped (outstanding) export sales to date

 $^{^{\}rm 2}$ Shipped export sales to date; new marketing year now in effect for wheat

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

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

³FAS Marketing Year Ranking Reports - http://apps.fas.usda.gov/export-sales/mvrkaug.htm: 3-vr average

Table 14

Top 5 Importers of U.S. Soybeans

For the week ending 8/01/2019		Total Commitme	% change	Exports ³	
	2019/20	2018/19	2017/18	current MY	3-yr avg.
	Next MY	Current MY	Last MY	from last MY	2015-2017
		- 1,000 m	t -		- 1,000 mt -
China	194	14,486	27,925	(48)	31,228
Mexico	714	4,938	4,473	10	3,716
Indonesia	29	2,375	2,641	(10)	2,250
Japan	157	2,568	2,341	10	2,145
Netherlands	0	2,109	2,270	(7)	2,209
Top 5 importers	1,094	26,476	39,650	(33)	41,549
Total US soybean export sales	3,651	48,827	58,476	(17)	55,113
% of Projected	8%	105%	101%		
Change from prior week ²	318	102	342		
Top 5 importers' share of U.S.					
s oybean export sales	30%	54%	68%		75%
USDA forecast, August 2019	48,365	46,322	58,147	80	

⁽n) indicates negative number.

Table 15

Top 10 Importers of All U.S. Wheat

For the week ending 8/01/2019	Total Commi	tments ²	% change	Exports ³ 3-yr avg
	2019/20	2018/19	current MY	
	Current MY	Last MY	from last MY	2015-2017
	- 1,0	000 mt -		- 1,000 mt -
Mexico	1,331	698	91	2,781
Japan	899	960	(6)	2,649
Philippines	1,187	1,099	8	2,441
Korea	415	668	(38)	1,257
Nigeria	625	313	100	1,254
Indonesia	302	271	11	1,076
Taiwan	457	404	13	1,066
China	60	0	n/a	944
Colombia	53	304	(83)	714
Thailand	315	380	(17)	618
Top 10 importers	5,643	5,096	11	14,800
Total US wheat export sales	9,386	7,514	25	22,869
% of Projected	35%	29%		
Change from prior week ²	488	317		
Top 10 importers' share of U.S.				
wheat export sales	60%	68%		65%
USDA forecast, August 2019	26,567	25,504	4	

⁽n) indicates negative number.

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

²Cumulative 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)

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)

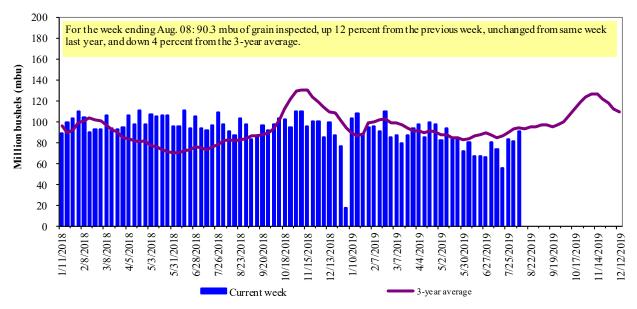
	For the Week Ending	Previous	Current Week			2019 YTD as	Last 4-we	eks as % of:	
Port Regions	08/08/19	Week*	as % of Previous	2019 YTD*	2018 YTD*	% of 2018 YTD	Last Year	Prior 3-yr. avg.	2018 Total*
Pacific Northwest									
Wheat	421	179	234	8,276	7,681	108	94	79	13,315
Corn	0	114	0	6,858	14,106	49	12	16	20,024
Soybeans	133	213	63	6,148	5,793	106	268	268	7,719
Total	554	506	110	21,282	27,580	77	66	71	41,058
Mississippi Gulf		200	110	21,202	27,000	.,	00	,1	11,000
Wheat	132	134	98	3,141	2,558	123	115	106	3,896
Corn	526	360	146	14,753	21,940	67	55	61	33,735
Soybeans	664	640	104	14,789	14,398	103	101	95	28,124
Total	1,322	1,134	117	32,683	38,896	84	76	78	65,755
Texas Gulf	,	,		,	,				,
Wheat	71	86	83	4,570	2,098	218	315	124	3,198
Corn	0	23	0	427	511	84	44	27	730
Soybeans	0	0	n/a	2	67	2	n/a	n/a	69
Total	71	109	66	4,999	2,676	187	230	102	3,997
Interior									
Wheat	72	38	191	1,157	912	127	207	167	1,614
Corn	165	138	119	4,725	5,414	87	84	104	8,650
Soybeans	154	150	103	4,191	4,160	101	106	144	6,729
Total	391	326	120	10,073	10,486	96	101	125	16,993
Great Lakes									
Wheat	29	1	n/a	537	401	134	37	49	894
Corn	0	0	n/a	0	320	0	0	0	404
Soybeans	35	23	150	398	317	125	195	185	1,192
Total	64	24	269	935	1,039	90	75	81	2,491
Atlantic									
Wheat	0	0	n/a	32	67	48	0	0	69
Corn	0	0	n/a	92	67	136	n/a	0	138
Soybeans	7	61	12	854	1,374	62	80	157	2,047
Total	7	61	12	978	1,509	65	80	134	2,253
U.S. total from ports*									
Wheat	725	438	166	17,714	13,718	129	121	95	22,986
Corn	691	634	109	26,855	42,359	63	44	51	63,682
Soybeans	993	1,087	91	26,381	26,110	101	121	126	45,879
Total	2,409	2,159	112	70,950	82,187	86	80	84	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/fgs); YTD= year-to-date; n/a = not applicable

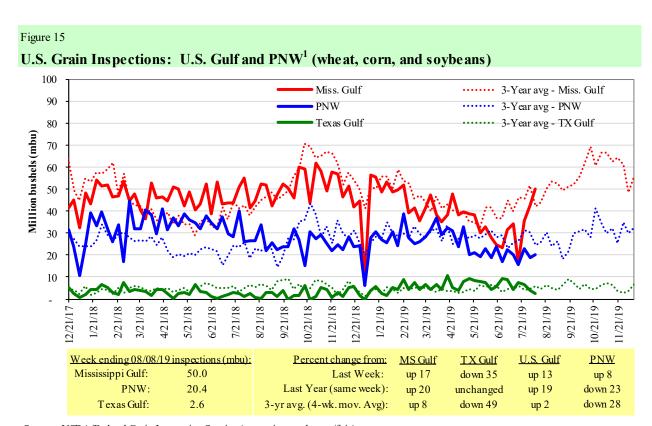
The United States exports approximately one-quarter of the grain it produces. On average, this includes nearly 45 percent of U.S.-grown wheat, 50 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 53 percent of the U.S. export grain shipments departed through the U.S.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

Figure 14
U.S. grain inspected for export (wheat, corn, and soybeans)



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

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



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

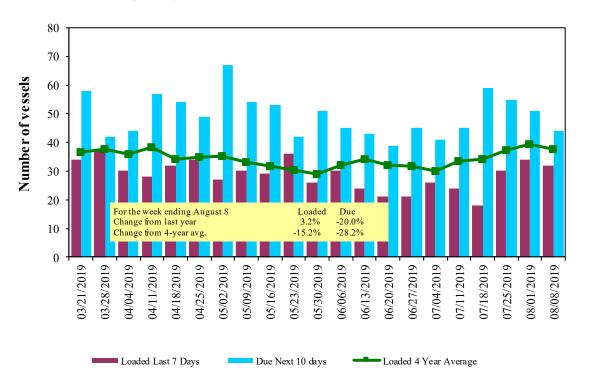
Ocean Transportation

Table 17
Weekly Port Region Grain Ocean Vessel Activity (number of vessels)

				Pacific
		Gulf		Northwest
		Loaded	Due next	
Date	In port	7-days	10-days	In port
8/8/2019	53	32	44	17
8/1/2019	46	34	51	19
2018 range	(2388)	(2441)	(3867)	(430)
2018 avg.	40	34	54	17

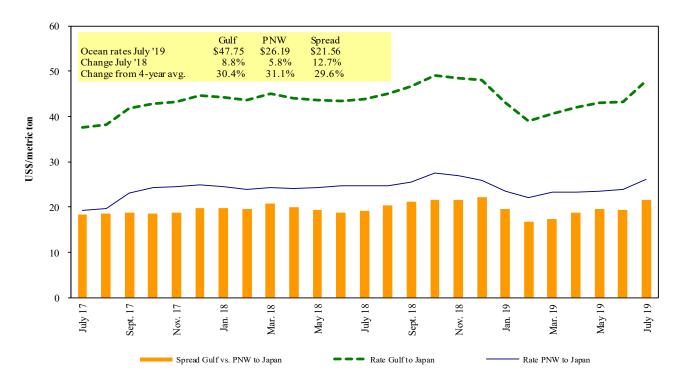
Source: Transportation & Marketing Programs/AMS/USDA

Figure 16 U.S. Gulf Vessel Loading Activity



Source: Transportation & Marketing Program/AMS/USDA $^{\rm l}$ U.S. Gulfincludes Mississippi, Texas, and East Gulf.

Figure 17 **Grain Vessel Rates, U.S. to Japan**



Data Source: O'Neil Commodity Consulting

Table 18
Ocean Freight Rates For Selected Shipments, Week Ending 08/10/2019

Export	Import	Grain	Loading	Volume loads	Freight rate
region	region	types	date	(metric tons)	(US \$/metric ton)
U.S. Gulf	China	Heavy Grain	Jun 1/30	63,000	42.00
U.S. Gulf	China	Heavy Grain	Mar 15/Apr 15	63,000	40.00
U.S. Gulf	Pt Sudan	Sorghum	Sep 20/30	38,540	133.75*
U.S. Gulf	Djibouti	Wheat	Aug 19/29	20,000	85.66*
U.S. Gulf	Durban	Sorghum	Jul 19/29	11,000	145.22*
PNW	China	Heavy Grain	Mar 2/18	60,000	27.50
PNW	Yemen	Wheat	Aug 19/29	29,200	71.75*
Brazil	China	Heavy Grain	Jun 10/20	65,000	33.00
Brazil	China	Heavy Grain	Apr 20/M ay 5	63,000	33.00
Brazil	China	Heavy Grain	Apr 15/30	63,000	32.50
Brazil	China	Heavy Grain	Mar 3/11	63,000	27.50
River Plate	China	Heavy Grain	Apr 21/30	65,000	37.85

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

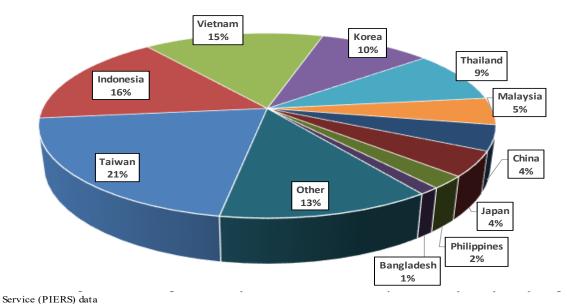
Source: Maritime Research Inc. (www.maritime-research.com)

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

In 2017, containers were used to transport 7 percent of total U.S. waterborne grain exports. Approximately 62 percent of U.S. waterborne grain exports in 2017 went to Asia, of which 10 percent were moved in containers. Approximately 93 percent of U.S. waterborne containerized grain exports were destined for Asia.

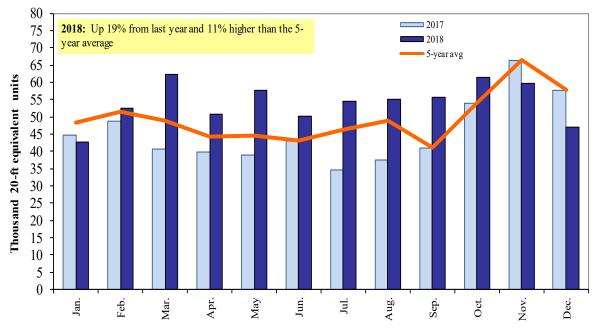
Figure 18

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



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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