



Grain Transportation Report

A weekly publication of the Agricultural Marketing Service
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February 4, 2016

WEEKLY HIGHLIGHTS

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Total Grain Inspections Up Slightly

For the week ending January 28, **total inspections of grain** (corn, wheat, soybeans) for export from all major export regions reached 2.1 million metric tons (mmt), up 3 percent from the past week, 25 percent below last year, and 15 percent below the 3-year average. Wheat inspections rebounded, increasing 50 percent from the previous week as shipments to Asia increased 67 percent. Corn inspections increased as well, up 13 percent from the past week. Soybean inspections, however, were down 8 percent from the previous week. Pacific Northwest (PNW) grain inspections jumped 35 percent from the previous week, but Mississippi Gulf grain inspections decreased 13 percent for the same period. Outstanding export sales (unshipped) of grain continued to increase for corn, but were down for wheat and soybeans.

Winter River Conditions Continue to Hamper Navigation

On February 2, the Coast Guard reported a 35-barge tow had become grounded on the Mississippi River, near Caruthersville, MO. The grounding was a result of unexpected low water levels that occurred as the Upper Mississippi River has subsided and sediments deposited from the flood waters became navigation hazards. The grounding and barge recovery operations temporarily closed the river. The Lower Mississippi River in the Baton Rouge-New Orleans (BR-NO), LA area is still at highwater stage and Coast Guard restrictions are in place that limit barge and vessel movements. USDA's Grain Inspection Packers and Stockyards Administration reported 531 unloaded grain barges in BR-NO for the week ending January 30, 33 percent lower than the 3-year average. However, the supply of empty barges has improved as 580 empty barges have returned to the Upper Mississippi, Ohio, and Arkansas Rivers for the week ending January 30, 16 percent higher than the 3-year average.

Diesel Fuel Prices Continue to Fall

The average U.S. On-Highway **Diesel Fuel price** fell to \$2.03 per gallon this week—4 cents lower than the previous week and 80 cents lower than the same week last year. Prices have fallen 20 cents since the beginning of the year. If the trend continues, the U.S. average could fall below \$2.00 per gallon which has not occurred since early 2005. In the meantime, 4 of the 10 regional averages fell below \$2.00 this week—the Lower Atlantic, Midwest, Gulf Coast, and Rocky Mountain regions. The lowest rate was \$1.92 per gallon in the Gulf Coast region. Gulf Coast rates have not been this low this March 2009.

Snapshots by Sector

Export Sales

During the week ending January 21, **unshipped balances** of wheat, corn, and soybeans totaled 25.5 mmt, down 21 percent from the same time last year. Net weekly **wheat export sales** of .294 mmt were down 19 percent from the previous week. Net **corn export sales** were .817 mmt, down 29 percent from the previous week, and net **soybean export sales** of .648 mmt, down 24 percent from the past week.

Rail

U.S. Class I railroads originated 21,047 **carloads of grain** for the week ending January 23, down 10 percent from the previous week, down 10 percent from last year, and unchanged from the 3-year average.

Average February shuttle **secondary railcar bids/offers** per car were \$38 above tariff for the week ending January 28, up \$50 from last week, and \$250 higher than last year. Average non-shuttle secondary railcar bids/offers were \$15 below tariff, up \$48 from last week. There were no non-shuttle bids/offers this week last year.

Barge

For the week ending January 30, **barge grain movements** totaled 746,399 tons, 23 percent higher than last week, and up 7 percent from the same period last year.

For the week ending January 30, 459 grain barges **moved down river**, up 20 percent from last week; 531 grain barges were **unloaded in New Orleans**, down 16 percent from the previous week.

Ocean

For the week ending January 28, 32 **ocean-going grain vessels** were loaded in the Gulf, 25.6 percent less than the same period last year. Fifty-six vessels are expected to be loaded within the next 10 days, 16.4 percent less than the same period last year.

For the week ending January 28, the ocean freight rate for shipping bulk grain from the Gulf to Japan was \$22.75 per metric ton (mt), down 2.2 percent from the previous week. The cost of shipping from the PNW to Japan was \$12.50 per metric ton, down 3.8 percent from the previous week.

Feature Article/Calendar

Grain Stocks, Storage, and Facilities: Implications for Transportation

Storage and the distribution of grain by commercial grain facilities serve an important role in the grain supply chain and provide for the efficient and timely flow of grain from farms to final users. For grain growers, grain storage serves several functions such as helping farmers capture higher prices later in the marketing year and contributing to a more timely harvest. For livestock and poultry growers and processors, storage helps ensure that inputs are available throughout the year, not just at harvest. Thus, combined with transportation, storage helps economically link farmers to national and international markets, and helps ensure the delivery of grain when it is needed. This article discusses the amounts and changes in grain stocks, production, and storage capacity and their relation to the timing of grain transportation, followed up with a discussion of consolidation in off-farm facilities, and the implications on transportation.

High 2015 Grain Stocks

During 2015, a strong dollar and low world grain prices incentivized shippers to hold onto some of their crop while they waited for a better market. Total grain in storage grew from the previous year, while total production declined slightly. Following the 2015 harvest, December 1 grain stocks were at their yearly peak, totaling 16.2 billion bushels (bbu), up 273 percent from September, and up 3 percent from December 2014 (see Table 1). Grain

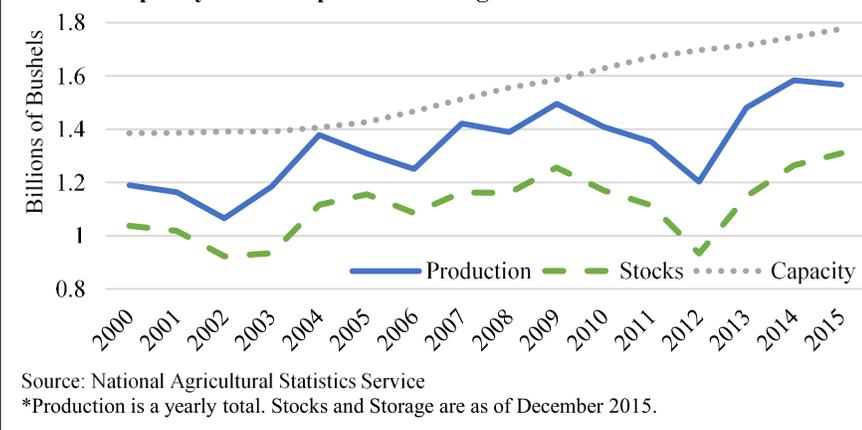
production in 2015 fell 2 percent from 2014. Shippers can expect this grain to move over the coming months, especially if prices turn around. Over the past 5 years, grain stocks fell an average of 35 percent between December 1 and the following March 1 survey by USDA's National Agricultural Statistics Service (NASS). States with the highest stocks as of December 1 were: Iowa (2.6 bbu), Illinois (2.3 bbu), Minnesota (1.7 bbu), Nebraska (1.7 bbu), and Kansas (1.0 bbu).

The availability of grain storage can help mitigate some transportation constraints during harvest. According to the NASS January *Grain Stocks* report, the U.S. has 24.2 billion bushels (bbu) of permanent grain storage capacity, broken out by 11.0 bbu off-farm and 13.2 bbu on-farm as of December 1, 2015. States combined to add 417.8 million bushels (mbu) of grain storage capacity from a year ago, an increase of about 2 percent. The majority of the increase was through off-farm additions (317.8 mbu). States with the most growth in total storage capacity compared to last year were: Iowa (70.0 mbu), South Dakota (69.0 mbu), Nebraska (32.0 mbu), Minnesota (30.0 mbu), and Indiana (26.0 mbu). South Dakota and Nebraska were identified as having relatively substantial grain storage shortages going into the 2014 and 2015 harvests (see [Grain Transportation Reports 10/16/14](#) and [10/15/15](#)).

Grain Industry Consolidation Continues with Implications for Transportation

Consolidation in the grain industry, particularly with respect to the loss of country elevators, is a complex story and involves several interconnected developments and factors. Consolidation is not unique to the grain industry, but characteristic of the agriculture sector overall. Structural changes in agriculture have led to larger farms,

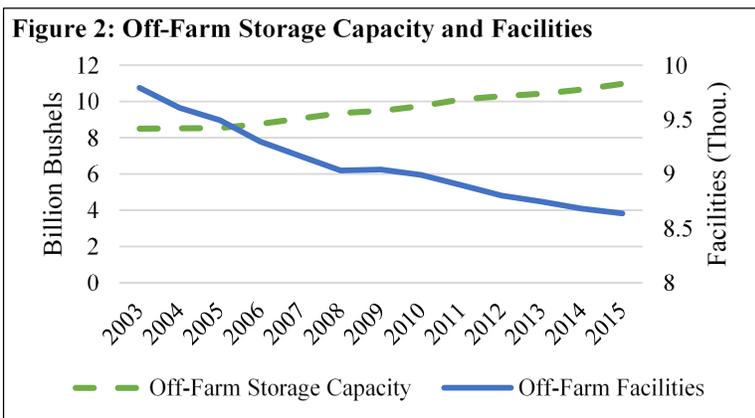
Figure 1: Average Grain Production, Stocks, and Storage Capacity in the Top 10 Producing States



State	Dec 2014 Stocks (bbu)	Dec 2015 Stocks (bbu)	5-year average Dec to Mar % Chg
Illinois	2.3	2.6	-35%
Iowa	2.5	2.3	-32%
Nebraska	1.6	1.7	-38%
Kansas	0.9	1.7	-31%
Minnesota	1.5	1	-32%
US Total	15.7	16.2	-35%

concentration in livestock processing, and general consolidation in the livestock, poultry, and dairy industries.¹ One cause of grain elevator consolidation has been technological change in the railroad industry.² While the pairing has a long history, the development and increased use of unit and (later) shuttle trains has dramatically shaped the grain merchandising industry over the past few decades. These train-types consist of large groups of cars, typically 75 or more, of a single commodity going from one origin to one destination (USDA-AMS, 2013).³ The large trains require higher volumes, greater storage capacity, and larger investments in infrastructure (USDA-AMS, 2013).

According to NASS, in 1990 the U.S. had 13,214 off-farm grain storage facilities, but only 8,638 in 2015—a drop of 35 percent.⁴ Figure 2 shows the trends in the number of off-farm facilities and their storage capacity over the last decade or so. Coupling the reduction in the number of grain facilities with increasing storage capacity shows consolidation in the grain merchandising industry and growing commercial grain operations. The average capacity per facility was 868,477 bushels in 2003, but 1,270,794 bushels in 2015. Smaller elevators that could not accommodate have consolidated or gone out of business.



Railroads have achieved greater efficiencies through the larger shipment sizes resulting in improved service and lower costs, a portion of which is passed on to shippers and farmers. However, the reduction in elevators has reduced farmer’s options in choosing an elevator and has increased the hauling distances for many farmers to ship their grain. This results in higher trucking costs to farmers, and a greater degree of road depreciation.

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¹ For more information, see “Cropland Consolidation and the Future of Family Farms” by USDA-Economic Research Service (ERS) (2013): <http://www.ers.usda.gov/amber-waves/2013-september/cropland-consolidation-and-the-future-of-family-farms.aspx#.VquCA7IrKHs>; “The Transformation of U.S. Livestock Agriculture: Scale, Efficiency, and Risks” by USDA-ERS (2009): <http://www.ers.usda.gov/media/184977/eib43.pdf>; “Structural Change in the Meat, Poultry, Dairy, and Grain Processing Industries” by USDA-ERS (2005): <http://www.ers.usda.gov/media/850597/err3.pdf>.
² Other influencing factors include the expansion in ethanol and higher capital requirements to run elevator operations. For more information, see Thomas (2009) and “National Grain Car Council – Evolution of Grain and Transportation” by the Surface Transportation Board (2011): <https://www.stb.dot.gov/stb/docs/NGCC/NGCC%20White%20Paper%20Final1.pdf>.
³ “Grain and Oilseed Shipment Sizes and Distance Hauled by Rail,” by USDA-Agricultural Marketing Service (2013): <https://www.ams.usda.gov/sites/default/files/media/Grain%20and%20Oilseed%20Shipment%20Sizes%20and%20Distance%20Hauled%20by%20Rail.pdf>. Shuttle trains differ from other unit trains in that they are operated on a continuous cycle for a specified length of time under contract. Some shuttle trains can cycle up to 36 times per year.
⁴ USDA-NASS, 2016. The 1990 number is likely higher because, in 2003, Iowa changed its method of counting to include each individual elevator of multi-unit operations (http://www.nass.usda.gov/Statistics_by_State/Iowa/Publications/Annual_Statistical_Bulletin/2009/50_09.pdf).

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			
1/27/2016 ^p	699	1,095	6,344	855	8,993	1/23/2016	1,792
1/20/2016 ^r	410	1,937	4,334	798	7,479	1/16/2016	1,417
2016 YTD ^r	1,976	5,283	21,682	2,871	31,812	2016 YTD	6,484
2015 YTD ^r	4,375	4,111	21,563	4,395	34,444	2015 YTD	6,178
2016 YTD as % of 2015 YTD	45	129	101	65	92	% change YTD	105
Last 4 weeks as % of 2015 ²	45	129	101	65	92	Last 4wks % 2015	105
Last 4 weeks as % of 4-year avg. ²	57	131	108	97	101	Last 4wks % 4 yr	104
Total 2015	29,054	60,819	239,029	26,730	355,632	Total 2015	97,736
Total 2014	44,617	83,674	256,670	32,107	417,068	Total 2014	98,422

¹ Data is incomplete as it is voluntarily provided

² Compared with same 4-weeks in 2015 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 FerroMex.

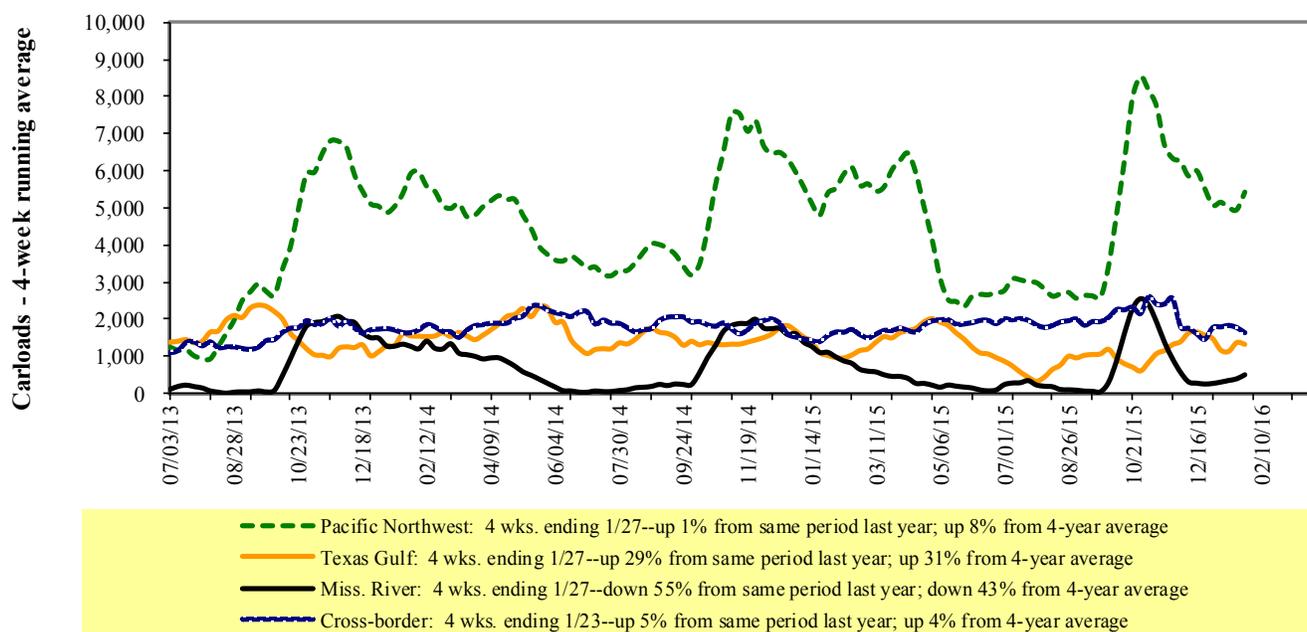
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available

Source: Transportation & Marketing Programs/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 Programs/AMS/USDA

Table 4

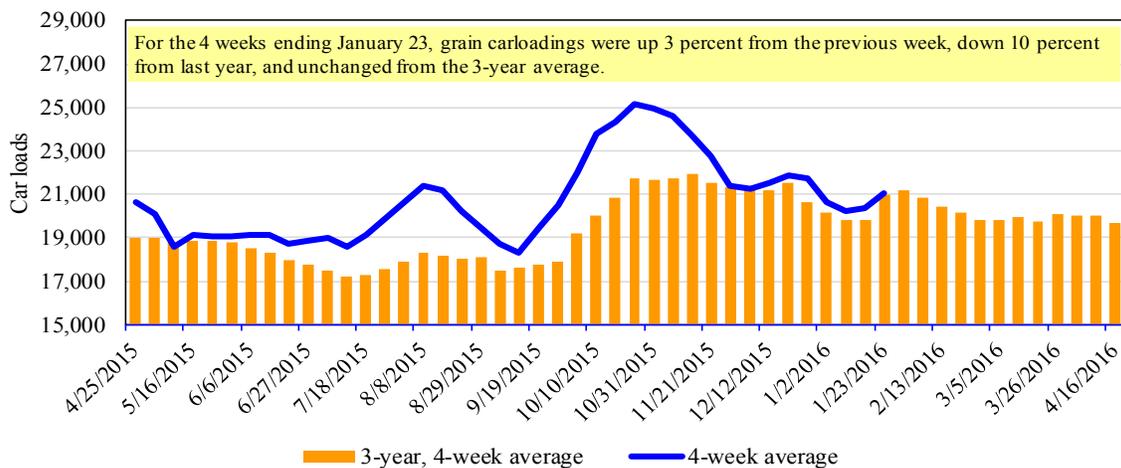
Class I Rail Carrier Grain Car Bulletin (grain carloads originated)

For the week ending:	East		West			U.S. total	Canada		
	1/23/2016	CSXT	NS	BNSF	KCS		UP	CN	CP
This week		1,972	2,268	10,947	751	5,109	21,047	4,127	4,500
This week last year		2,638	3,297	11,422	728	5,362	23,447	3,519	5,166
2016 YTD		6,309	7,970	33,335	2,744	15,243	65,601	10,978	12,897
2015 YTD		7,991	10,241	32,575	2,531	17,087	70,425	11,890	14,196
2016 YTD as % of 2015 YTD		79	78	102	108	89	93	92	91
Last 4 weeks as % of 2015*		80	79	98	94	86	90	85	85
Last 4 weeks as % of 3-yr avg.**		98	86	109	94	94	100	86	81
Total 2015		104,039	149,043	536,173	45,445	267,720	1,102,420	211,868	236,263

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

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

Source: Association of American Railroads (www.aar.org)

Figure 3**Total Weekly U.S. Class I Railroad Grain Car Loadings**

Source: Association of American Railroads

Table 5

Railcar Auction Offerings¹ (\$/car)²

For the week ending:		<u>Delivery period</u>							
1/28/2016		Feb-16	Feb-15	Mar-16	Mar-15	Apr-16	Apr-15	May-16	May-15
BNSF ³	COT grain units	no bids	no offer	no bids	no offer	no bids	2	no bids	4
	COT grain single-car ⁵	0	no offer	0	0..6	0	0..7	0..1	0..2
UP ⁴	GCAS/Region 1	no bids	no offer	no bids	no offer	no bids	no offer	n/a	n/a
	GCAS/Region 2	no bids	no offer	no bids	no offer	no bids	no offer	n/a	n/a

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

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

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

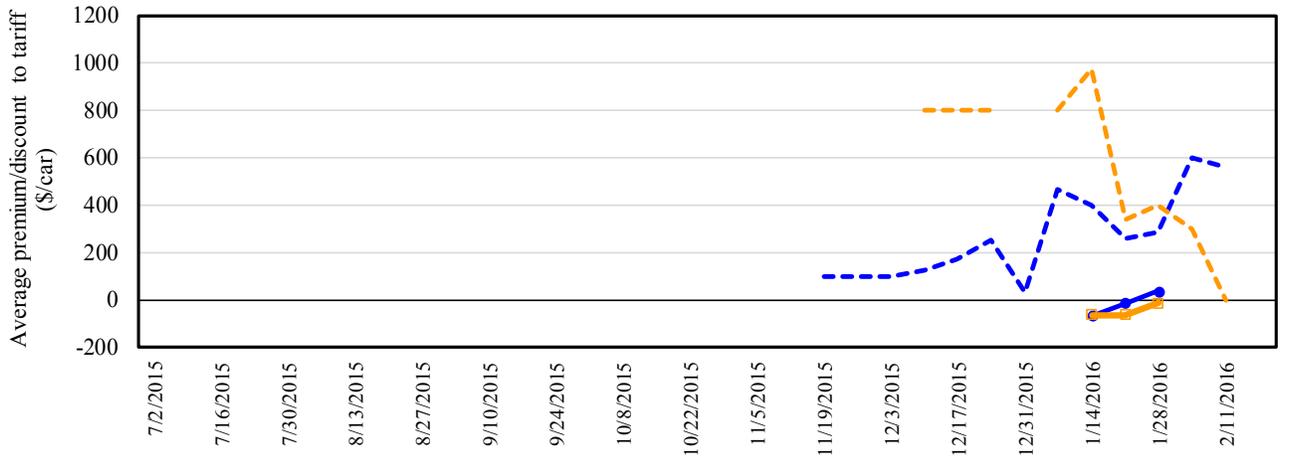
Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

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

Source: Transportation & Marketing Programs/AMS/USDA.

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

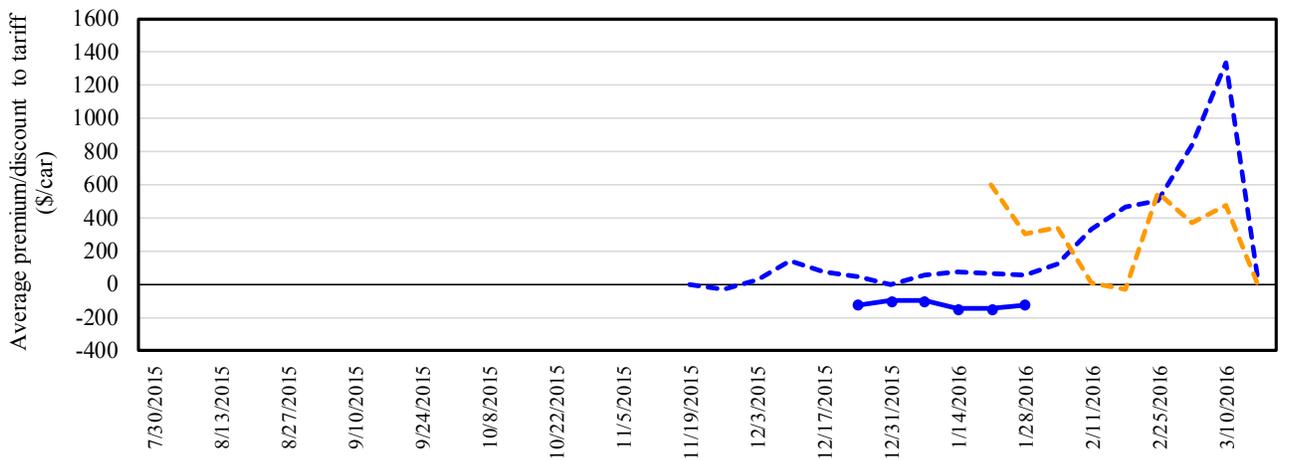
Figure 4
Bids/Offers for Railcars to be Delivered in February 2016, Secondary Market



1/28/2016	BNSF	UP	Shuttle	Non-Shuttle
Non-Shuttle	-\$17	-\$13	Shuttle prior 3-yr avg. (same week)	Non-Shuttle prior 3-yr avg. (same week)
Shuttle	\$75	\$0	Average Non-shuttle bids/offers rose \$48 this week, and are at the peak. Average Shuttle bids/offers rose \$50 this week and are at the peak.	

Non-shuttle bids include unit-train and single-car bids. n/a = not available.
 Source: Transportation & Marketing Programs/AMS/USDA

Figure 5
Bids/Offers for Railcars to be Delivered in March 2016, Secondary Market

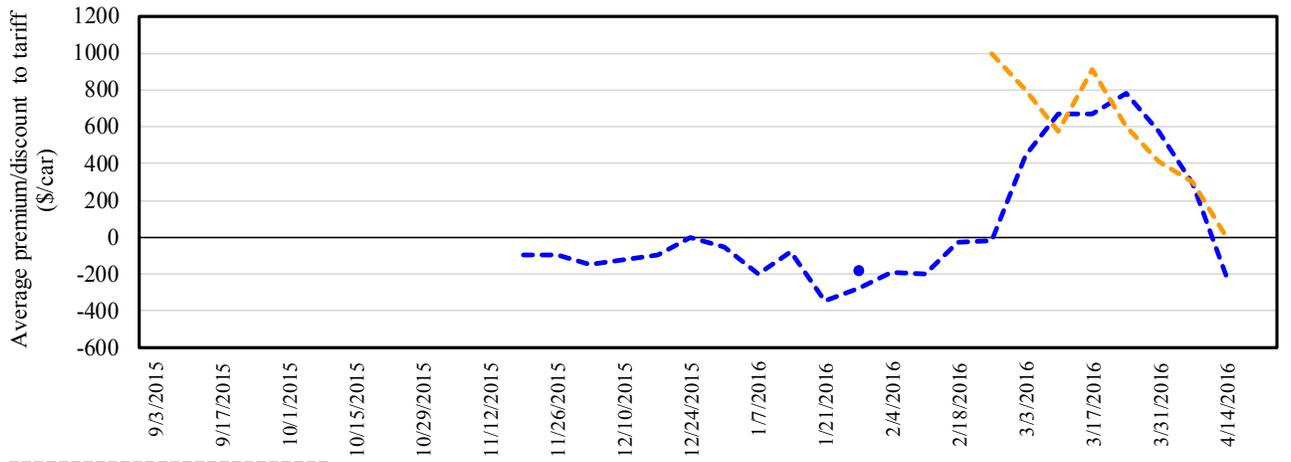


1/28/2016	BNSF	UP	Shuttle	Non-Shuttle
Non-Shuttle	n/a	n/a	Shuttle prior 3-yr avg. (same week)	Non-Shuttle prior 3-yr avg. (same week)
Shuttle	-\$125	-\$125	There were no Non-Shuttle bids/offers this week. Average Shuttle bids/offers rose \$25 this week and are \$25 below the peak.	

Non-shuttle bids include unit-train and single-car bids. n/a = not available.
 Source: Transportation & Marketing Programs/AMS/USDA

Figure 6

Bids/Offers for Railcars to be Delivered in April 2016, Secondary Market



1/28/2016	BNSF	UP
Non-Shuttle	n/a	n/a
Shuttle	-\$175	n/a

—●— Shuttle
- - - Shuttle prior 3-yr avg. (same week)
—■— Non-Shuttle
- - - Non-Shuttle prior 3-yr avg. (same week)

There were no Non-Shuttle bids/offers this week.
 There were no Shuttle bids/offers last week. A average Non-Shuttle bids/offers this week are at the peak.

Non-shuttle bids include unit-train and single-car bids. n/a = not available.
 Source: Transportation & Marketing Programs/AMS/USDA

Table 6

Weekly Secondary Railcar Market (\$/car)¹

For the week ending:		Delivery period					
		1/28/2016	Feb-16	Mar-16	Apr-16	May-16	Jun-16
Non-shuttle	BNSF-GF	(17)	n/a	n/a	n/a	n/a	n/a
	Change from last week	8	n/a	n/a	n/a	n/a	n/a
	Change from same week 2015	n/a	n/a	n/a	n/a	n/a	n/a
	UP-Pool	(13)	n/a	n/a	n/a	n/a	n/a
	Change from last week	87	n/a	n/a	n/a	n/a	n/a
	Change from same week 2015	n/a	n/a	n/a	n/a	n/a	n/a
Shuttle	BNSF-GF	75	(125)	(175)	n/a	n/a	n/a
	Change from last week	33	n/a	n/a	n/a	n/a	n/a
	Change from same week 2015	175	n/a	n/a	n/a	n/a	n/a
	UP-Pool	0	(125)	n/a	n/a	n/a	n/a
	Change from last week	67	25	n/a	n/a	n/a	n/a
	Change from same week 2015	325	200	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; Pool = guaranteed pool

Sources: Transportation and Marketing Programs/AMS/USDA

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

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

Effective date:		Origin region*	Destination region*	Tariff rate/car	Fuel surcharge per car	Tariff plus surcharge per:		Percent change Y/Y ³
2/1/2016	metric ton					bushel ²		
Unit train								
Wheat	Wichita, KS	St. Louis, MO	\$3,605	\$25	\$36.05	\$0.98	3	
	Grand Forks, ND	Duluth-Superior, MN	\$3,563	-\$12	\$35.26	\$0.96	-3	
	Wichita, KS	Los Angeles, CA	\$6,950	-\$61	\$68.41	\$1.86	4	
	Wichita, KS	New Orleans, LA	\$4,243	\$45	\$42.58	\$1.16	0	
	Sioux Falls, SD	Galveston-Houston, TX	\$6,486	-\$50	\$63.91	\$1.74	5	
	Northwest KS	Galveston-Houston, TX	\$4,511	\$49	\$45.28	\$1.23	0	
	Amarillo, TX	Los Angeles, CA	\$4,710	\$68	\$47.45	\$1.29	-2	
Corn	Champaign-Urbana, IL	New Orleans, LA	\$3,681	\$50	\$37.05	\$0.94	4	
	Toledo, OH	Raleigh, NC	\$6,061	\$0	\$60.19	\$1.53	3	
	Des Moines, IA	Davenport, IA	\$2,168	\$11	\$21.64	\$0.55	-2	
	Indianapolis, IN	Atlanta, GA	\$5,004	\$0	\$49.69	\$1.26	0	
	Indianapolis, IN	Knoxville, TN	\$4,311	\$0	\$42.81	\$1.09	1	
Soybeans	Des Moines, IA	Little Rock, AR	\$3,444	\$31	\$34.51	\$0.88	0	
	Des Moines, IA	Los Angeles, CA	\$5,052	\$91	\$51.07	\$1.30	-4	
	Minneapolis, MN	New Orleans, LA	\$4,009	\$8	\$39.89	\$1.09	-3	
	Toledo, OH	Huntsville, AL	\$5,051	\$0	\$50.16	\$1.37	3	
	Indianapolis, IN	Raleigh, NC	\$6,178	\$0	\$61.35	\$1.67	4	
Shuttle Train	Indianapolis, IN	Huntsville, AL	\$4,529	\$0	\$44.98	\$1.22	0	
	Champaign-Urbana, IL	New Orleans, LA	\$4,395	\$50	\$44.14	\$1.20	5	
Wheat	Great Falls, MT	Portland, OR	\$3,953	-\$35	\$38.91	\$1.06	1	
	Wichita, KS	Galveston-Houston, TX	\$3,919	-\$27	\$38.65	\$1.05	7	
	Chicago, IL	Albany, NY	\$5,492	\$0	\$54.54	\$1.48	10	
	Grand Forks, ND	Portland, OR	\$5,611	-\$61	\$55.12	\$1.50	1	
	Grand Forks, ND	Galveston-Houston, TX	\$5,931	-\$63	\$58.27	\$1.59	-9	
	Northwest KS	Portland, OR	\$5,478	\$80	\$55.19	\$1.50	-2	
	Corn	Minneapolis, MN	Portland, OR	\$5,000	-\$74	\$48.92	\$1.24	-9
Sioux Falls, SD		Tacoma, WA	\$4,960	-\$68	\$48.58	\$1.23	-9	
Champaign-Urbana, IL		New Orleans, LA	\$3,481	\$50	\$35.07	\$0.89	3	
Lincoln, NE		Galveston-Houston, TX	\$3,600	-\$40	\$35.36	\$0.90	-5	
Des Moines, IA		Amarillo, TX	\$3,795	\$39	\$38.08	\$0.97	-2	
Minneapolis, MN		Tacoma, WA	\$5,000	-\$73	\$48.92	\$1.24	-9	
Council Bluffs, IA		Stockton, CA	\$4,640	-\$76	\$45.32	\$1.15	-6	
Soybeans		Sioux Falls, SD	Tacoma, WA	\$5,490	-\$68	\$53.85	\$1.47	-8
		Minneapolis, MN	Portland, OR	\$5,510	-\$74	\$53.98	\$1.47	-9
		Fargo, ND	Tacoma, WA	\$5,380	-\$60	\$52.83	\$1.44	-8
	Council Bluffs, IA	New Orleans, LA	\$4,425	\$58	\$44.52	\$1.21	-5	
	Toledo, OH	Huntsville, AL	\$4,226	\$0	\$41.97	\$1.14	4	
Grand Island, NE	Portland, OR	\$5,360	\$82	\$54.04	\$1.47	-6		

¹A unit train refers to shipments of at least 25 cars. Shuttle train rates are 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 & soybeans 60 lbs./bu.

³Percentage change year over year calculated using tariff rate plus fuel surcharge

Sources: www.bnsf.com, www.cpr.ca, www.csx.com, www.uprr.com

*Regional economic areas defined by the Bureau of Economic Analysis (BEA)

Table 8

Tariff Rail Rates for U.S. Bulk Grain Shipments to Mexico

Commodity	Origin state	Destination region	Tariff rate/car ¹	Fuel	Tariff plus surcharge per:		Percent change Y/Y ⁴
				surcharge per car ²	metric ton ³	bushe ³	
Wheat	MT	Chihuahua, CI	\$7,459	\$0	\$76.21	\$2.07	2
	OK	Cuautitlan, EM	\$6,514	\$35	\$66.91	\$1.82	-6
	KS	Guadalajara, JA	\$6,995	\$84	\$72.33	\$1.97	-4
	TX	Salinas Victoria, NL	\$4,142	\$20	\$42.52	\$1.16	3
Corn	IA	Guadalajara, JA	\$8,397	\$78	\$86.59	\$2.20	-4
	SD	Celaya, GJ	\$7,840	\$0	\$80.11	\$2.03	-4
	NE	Queretaro, QA	\$7,879	\$66	\$81.18	\$2.06	-2
	SD	Salinas Victoria, NL	\$6,545	\$0	\$66.87	\$1.70	5
	MO	Tlalnepantla, EM	\$7,238	\$64	\$74.61	\$1.89	-2
	SD	Torreon, CU	\$7,240	\$0	\$73.98	\$1.88	-1
Soybeans	MO	Bojay (Tula), HG	\$8,652	\$79	\$89.21	\$2.43	1
	NE	Guadalajara, JA	\$9,142	\$82	\$94.25	\$2.56	-1
	IA	El Castillo, JA	\$9,470	\$0	\$96.76	\$2.63	-2
	KS	Torreon, CU	\$7,439	\$58	\$76.60	\$2.08	0
Sorghum	NE	Celaya, GJ	\$7,344	\$71	\$75.76	\$1.92	-4
	KS	Queretaro, QA	\$7,563	\$44	\$77.72	\$1.97	6
	NE	Salinas Victoria, NL	\$6,168	\$35	\$63.37	\$1.61	6
	NE	Torreon, CU	\$6,672	\$56	\$68.74	\$1.74	-2

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.

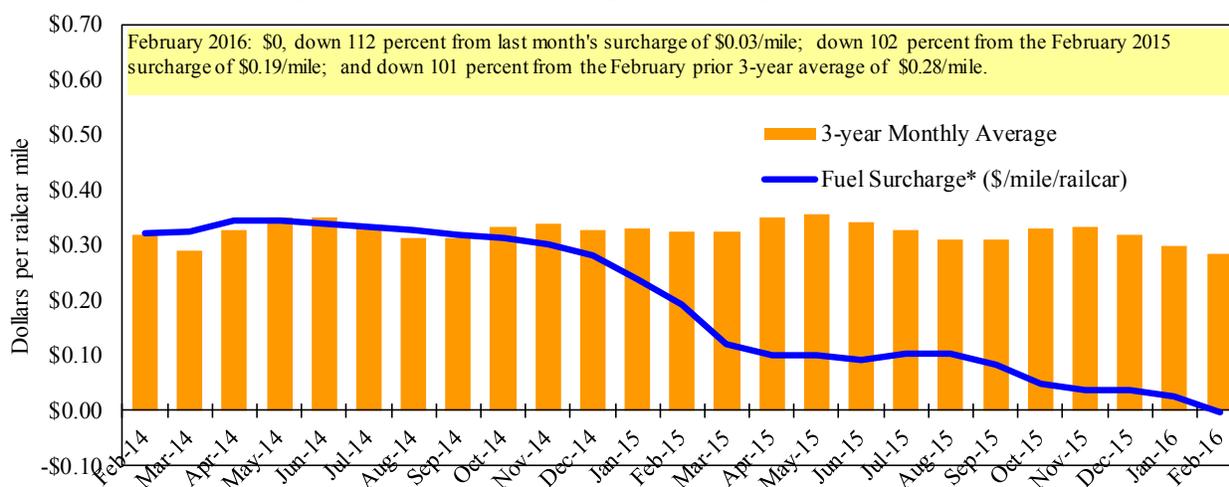
²Fuel surcharge adjusted to reflect the change in Ferrocarril Mexicano, S.A. de C.V railroad fuel surcharge policy as of 10/01/2009

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

⁴Percentage change year over year calculated using tariff rate plus fuel surcharge

Sources: www.bnsf.com, www.uprr.com, www.kcsouthern.com

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.

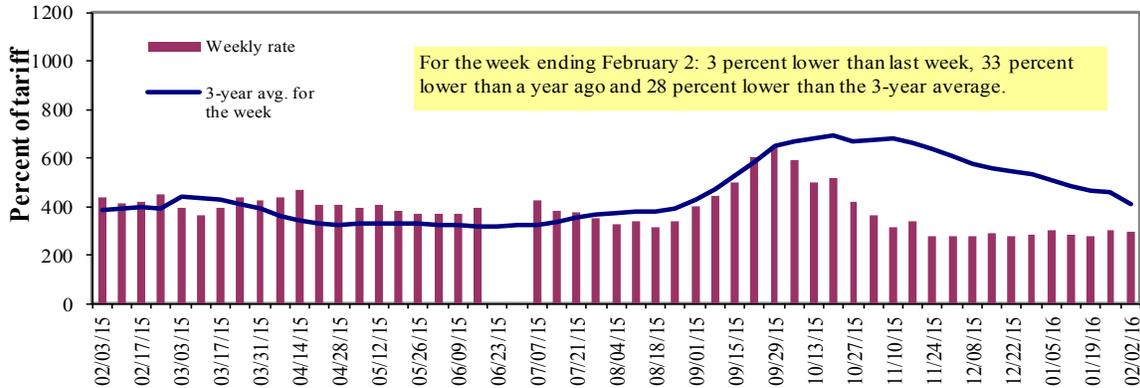
**CSX strike price changed from \$2.00/gal. to \$3.75/gal. starting January 1, 2015.

Sources: www.bnsf.com, www.cn.ca, www.cpr.ca, www.csx.com, www.kesi.com, www.nscorp.com, www.uprr.com

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 Programs/AMS/USDA

Table 9

Weekly Barge Freight Rates: Southbound Only

		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate¹	2/2/2016	-	-	296	195	223	223	178
	1/26/2016	-	-	305	198	203	205	170
\$/ton	2/2/2016	-	-	13.73	7.78	10.46	9.01	5.59
	1/26/2016	-	-	14.15	7.90	9.52	8.28	5.34
Current week % change from the same week:								
	Last year	-	-	-33	-44	-39	-39	-24
	3-year avg. ²	-	-	-28	-46	-37	-37	-30
Rate¹	March	-	-	275	190	208	208	165
	May	333	275	268	183	203	203	163

¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-week moving average; ton = 2,000 pounds; missing data due to winter closure or flooding

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.

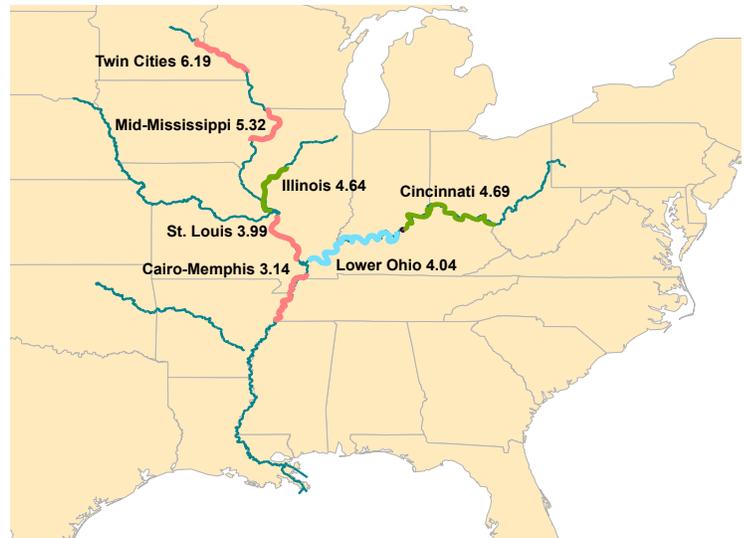
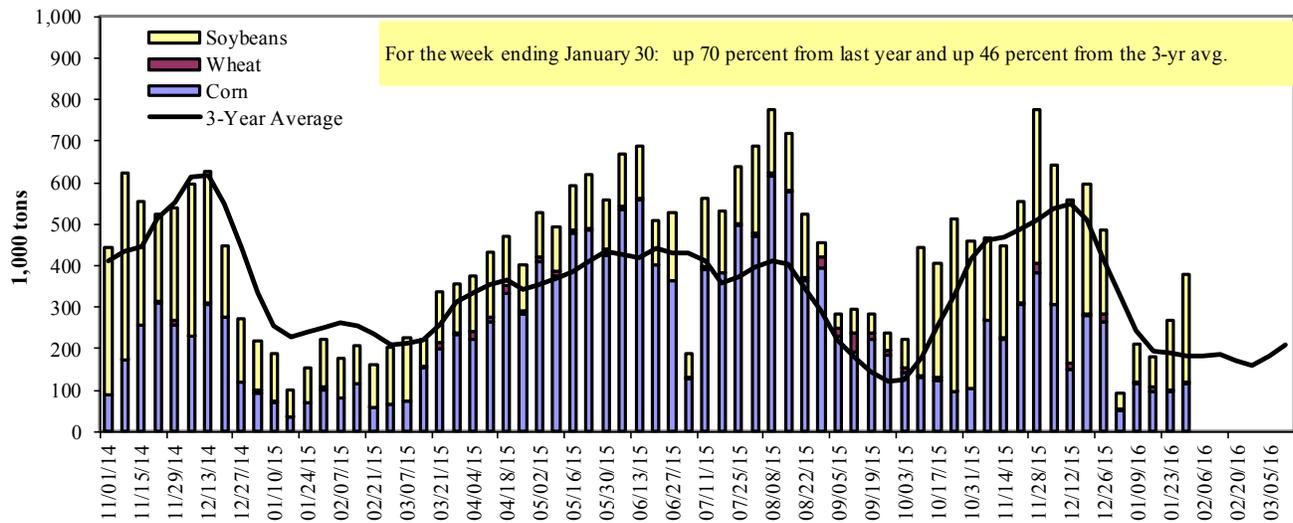


Figure 10

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 1/30/2016	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	0	0	0	0	0
Winfield, MO (L25)	0	0	0	0	0
Alton, IL (L26)	108	3	253	0	363
Granite City, IL (L27)	116	3	259	0	378
Illinois River (L8)	86	3	204	0	293
Ohio River (L52)	167	3	160	0	330
Arkansas River (L1)	0	7	31	0	38
Weekly total - 2016	283	14	450	0	746
Weekly total - 2015	328	37	323	13	700
2016 YTD ¹	1,022	50	1,302	2	2,375
2015 YTD	1,020	82	1,191	28	2,320
2016 as % of 2015 YTD	100	60	109	7	102
Last 4 weeks as % of 2015 ²	100	60	109	7	102
Total 2015 (revised 1/14/2016)	19,215	1,686	14,191	359	35,451

¹ Weekly total, YTD (year-to-date) and calendar year total includes Miss/27, Ohio/52, and Ark/1; "Other" refers to oats, barley, sorghum, and rye.

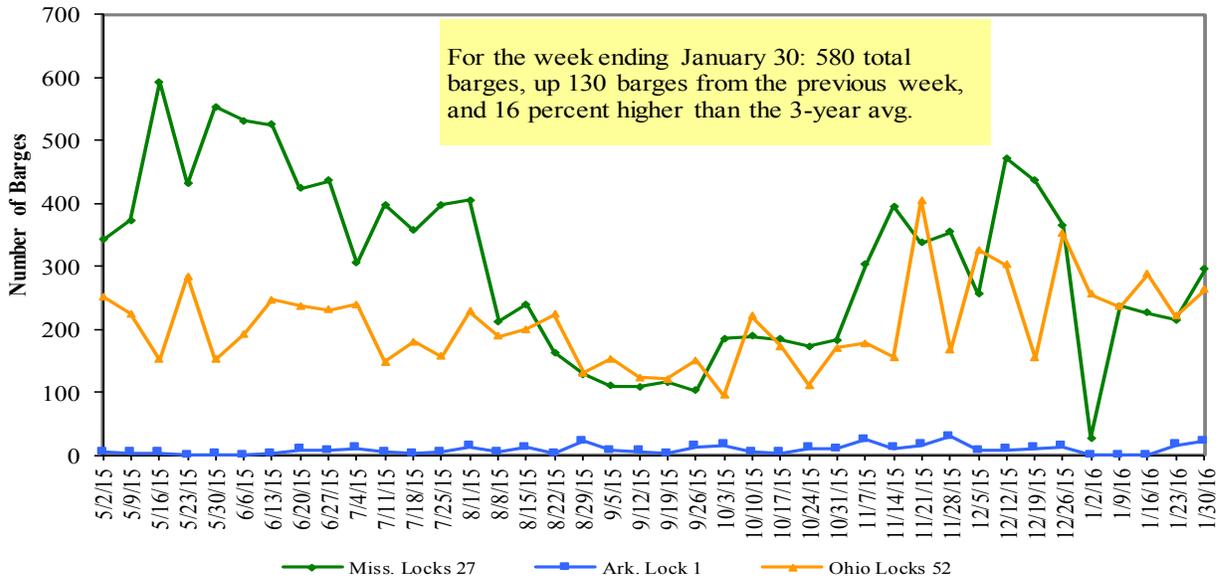
² As a percent of same period in 2015.

Note: Total may not add exactly, due to rounding

Source: U.S. Army Corps of Engineers

Figure 11

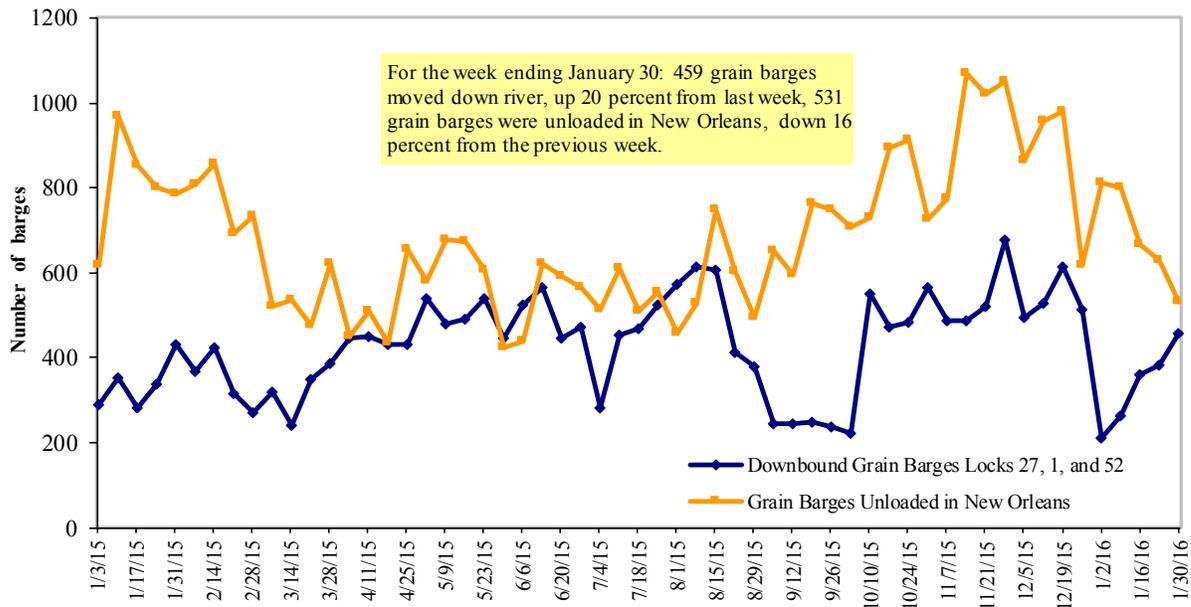
Upbound Empty Barges Transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Locks and Dam 52



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 GIPSA

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 Prices¹, Week Ending 2/1/2016 (US \$/gallon)

Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	2.111	-0.029	-0.821
	New England	2.219	-0.021	-0.809
	Central Atlantic	2.239	-0.025	-0.802
	Lower Atlantic	1.992	-0.033	-0.834
II	Midwest ²	1.941	-0.046	-0.824
III	Gulf Coast ³	1.917	-0.040	-0.852
IV	Rocky Mountain	1.969	-0.046	-0.814
V	West Coast	2.273	-0.052	-0.613
	West Coast less California	2.117	-0.043	-0.599
	California	2.399	-0.060	-0.628
Total	U.S.	2.031	-0.040	-0.800

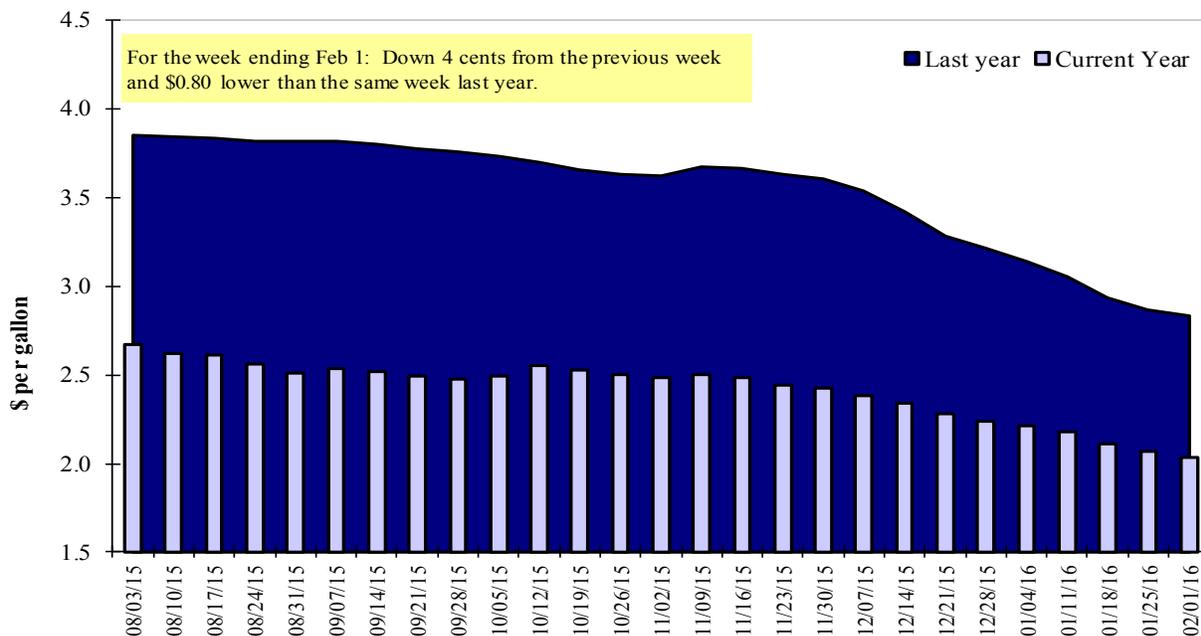
¹Diesel fuel prices include all taxes. Prices represent an average of all types of diesel fuel.

²Same as North Central ³Same as South Central

Source: Energy Information Administration/U.S. Department of Energy (www.eia.doe.gov)

Figure 13

Weekly Diesel Fuel Prices, U.S. Average



Source: Retail On-Highway Diesel Prices, Energy Information Administration, Dept. of Energy

Grain Exports

Table 12

U.S. Export Balances and Cumulative Exports (1,000 metric tons)

For the week ending	Wheat						Corn	Soybeans	Total
	HRW	SRW	HRS	SWW	DUR	All wheat			
Export Balances¹									
1/21/2016	1,169	546	1,482	932	76	4,205	11,837	9,426	25,468
This week year ago	1,598	741	1,858	1,037	85	5,320	16,694	10,571	32,585
Cumulative exports-marketing year²									
2015/16 YTD	3,560	2,236	3,949	2,214	547	12,506	11,259	31,228	54,993
2014/15 YTD	4,491	2,487	4,692	2,470	478	14,618	14,609	34,376	63,603
YTD 2015/16 as % of 2014/15	79	90	84	90	114	86	77	91	86
Last 4 wks as % of same period 2014/15	74	81	77	91	87	80	68	97	80
2014/15 Total	7,009	3,654	7,250	3,758	665	22,336	45,205	49,614	117,155
2013/14 Total	11,465	7,307	6,338	4,367	486	29,963	46,868	44,478	121,309

¹ Current unshipped (outstanding) export sales to date

² Shipped export sales to date; new marketing year now in effect for corn and soybeans

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

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

Table 13

Top 5 Importers¹ of U.S. Corn

For the week ending 1/21/2016	Commitments ²		% change current MY from last MY	Exports ³ 3-year avg 2011-2013
	2015/16	2014/15		
	Current MY	Last MY		
	- 1,000 mt -			- 1,000 mt -
Japan	3,731	6,482	(42)	10,079
Mexico	8,858	7,285	22	8,145
Korea	645	1,669	(61)	2,965
Colombia	2,173	2,306	(6)	3,461
Taiwan	425	753	(44)	1,238
Top 5 Importers	15,832	18,497	(14)	25,887
Total US corn export sales	23,096	31,303	(26)	34,445
% of Projected	53%	66%		
Change from prior week	817	957		
Top 5 importers' share of U.S. corn export sales	69%	59%		75%
USDA forecast, January 2016	43,257	47,430	(9)	
Corn Use for Ethanol USDA forecast, January 2016	132,080	132,309	(0)	

(n) indicates negative number.

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

² Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query--
<http://www.fas.usda.gov/esrquery/>

³ FAS Marketing Year Ranking Reports - <http://apps.fas.usda.gov/export-sales/myrkaug.htm>; 3-yr average

Table 14

Top 5 Importers¹ of U.S. Soybeans

For the week ending 1/21/2016	Total Commitments ²		% change current MY from last MY	Exports ³ 3-yr avg. 2011-13
	2015/16 Current MY	2014/15 Last MY		
	- 1,000 mt -			- 1,000 mt -
China	25,188	28,243	(11)	24,211
Mexico	2,044	2,366	(14)	2,971
Indonesia	779	1,086	(28)	1,895
Japan	1,266	1,303	(3)	1,750
Taiwan	744	1,093	(32)	1,055
Top 5 importers	30,021	34,091	(12)	31,882
Total US soybean export sales	40,655	44,947	(10)	39,169
% of Projected	88%	90%		
Change from prior week	648	755		
Top 5 importers' share of U.S. soybean export sales	74%	76%		81%
USDA forecast, January 2016	46,049	50,218	(8)	

(n) indicates negative number.

¹Based on FAS Marketing Year Ranking Reports - 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--
<http://www.fas.usda.gov/esrquery/>³FAS Marketing Year Final Reports - www.fas.usda.gov/export-sales/myfi_rpt.htm. (Carryover plus Accumulated Exports)

Table 15

Top 10 Importers¹ of All U.S. Wheat

For the week ending 1/21/2016	Total Commitments ²		% change current MY from last MY	Exports ³ 3-yr avg 2012-2014
	2015/16 Current MY	2014/15 Last MY		
	- 1,000 mt -			- 1,000 mt -
Japan	1,947	2,615	(26)	3,113
Mexico	1,797	2,257	(20)	2,807
Nigeria	1,371	1,874	(27)	2,512
Philippines	1,777	2,012	(12)	2,105
Brazil	369	1,461	(75)	2,091
Korea	1,051	1,142	(8)	1,273
Taiwan	829	816	2	1,007
Indonesia	352	407	(14)	751
Colombia	520	526	(1)	662
Thailand	388	432		618
Top 10 importers	10,013	13,109	(24)	16,939
Total US wheat export sales	16,710	19,937	(16)	26,361
% of Projected	77%	86%		
Change from prior week	294	544		
Top 10 importers' share of U.S. wheat export sales	60%	66%		64%
USDA forecast, January 2016	21,798	23,270	(6)	

(n) indicates negative number.

¹Based on FAS Marketing Year Ranking Reports - www.fas.usda.gov; Marketing year = Jun 1 - May 31.²Cumulative Exports (shipped) + Outstanding Sales (unshipped), FAS Weekly Export Sales Report, or Export Sales Query--
<http://www.fas.usda.gov/esrquery/>³FAS Marketing Year Final Reports - www.fas.usda.gov/export-sales/myfi_rpt.htm.

Table 16

Grain Inspections for Export by U.S. Port Region (1,000 metric tons)

Port regions	For the Week Ending 01/28/16	Previous Week ¹	Current Week as % of Previous	2016 YTD ¹	2015 YTD ¹	2016 YTD as % of 2015 YTD	Last 4-weeks as % of		Total ¹ 2015
							2015	3-yr. avg.	
Pacific Northwest									
Wheat	160	109	147	793	844	94	94	89	10,943
Corn	65	121	54	303	367	83	83	88	7,232
Soybeans	516	317	163	1,476	1,612	92	92	96	11,814
Total	741	547	135	2,572	2,822	91	91	93	29,990
Mississippi Gulf									
Wheat	43	67	64	198	250	79	79	54	4,504
Corn	509	403	126	1,641	1,932	85	85	113	26,692
Soybeans	514	747	69	3,054	4,243	72	72	83	29,653
Total	1,065	1,218	87	4,892	6,425	76	76	89	60,849
Texas Gulf									
Wheat	85	0	n/a	164	156	105	105	50	3,724
Corn	0	0	n/a	32	63	51	51	66	656
Soybeans	0	0	n/a	63	148	42	42	53	800
Total	85	0	n/a	259	367	70	70	52	5,179
Interior									
Wheat	8	22	35	84	85	99	87	95	1,386
Corn	93	65	145	390	391	100	95	115	6,181
Soybeans	49	78	63	265	419	63	86	64	3,612
Total	150	165	91	739	896	83	99	87	11,179
Great Lakes									
Wheat	0	0	n/a	0	0	n/a	n/a	0	993
Corn	0	0	n/a	0	0	n/a	n/a	0	491
Soybeans	0	0	n/a	0	0	n/a	n/a	0	684
Total	0	0	n/a	0	0	n/a	n/a	0	2,168
Atlantic									
Wheat	1	0	n/a	31	1	n/a	3,011	183	462
Corn	0	0	n/a	0	0	n/a	n/a	0	277
Soybeans	76	118	64	294	372	79	79	94	2,026
Total	77	118	65	325	373	87	87	99	2,765
U.S. total from ports²									
Wheat	297	198	150	1,271	1,336	95	95	75	22,011
Corn	667	589	113	2,366	2,753	86	86	108	41,529
Soybeans	1,154	1,261	92	5,151	6,794	76	76	85	48,589
Total	2,118	2,048	103	8,788	10,882	81	81	88	112,129

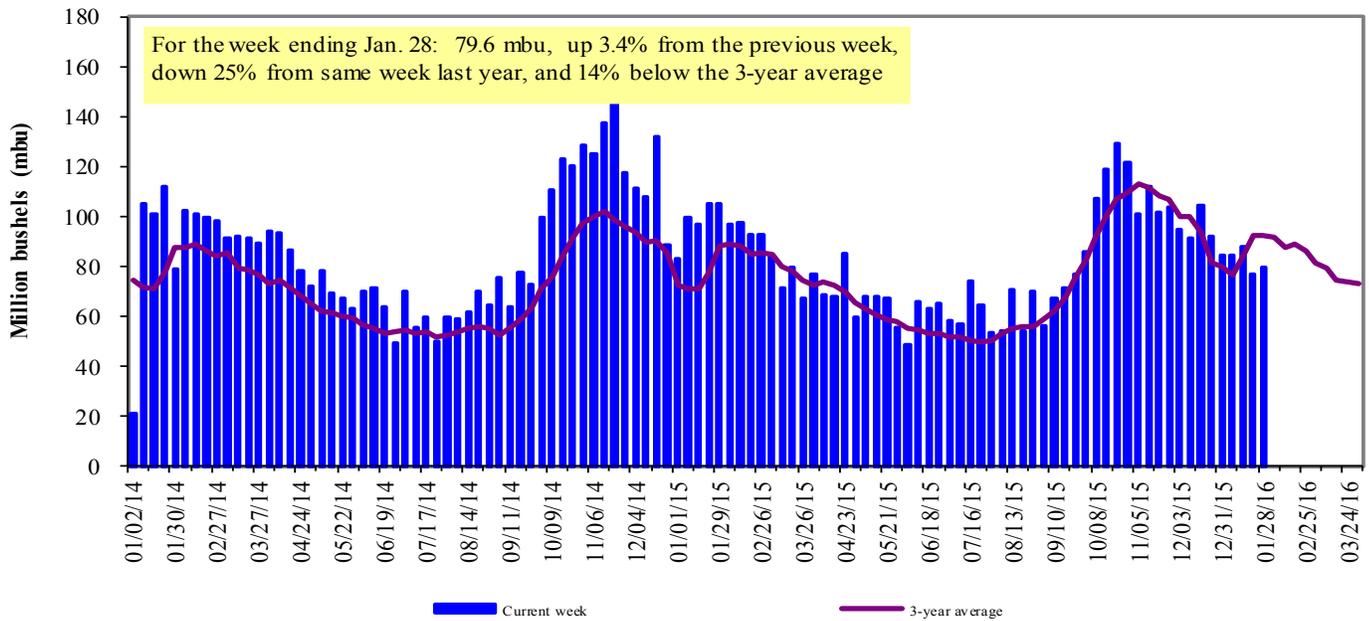
¹Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov); 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, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 59 percent of the U.S. export grain shipments departed through the U.S. Gulf region in 2015.

Figure 14

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

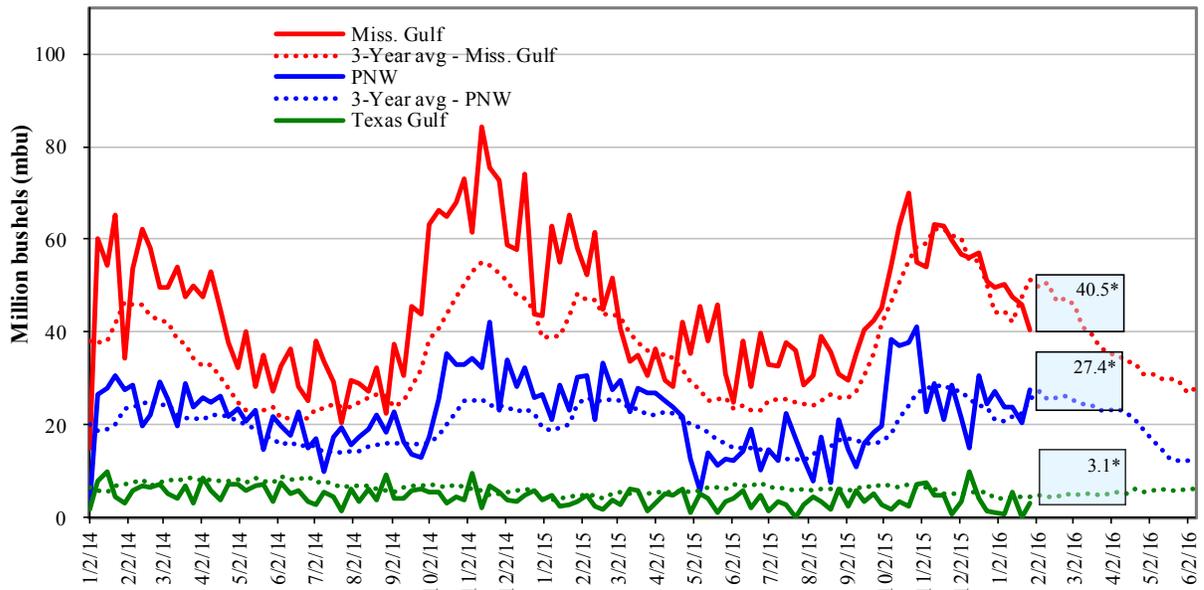


Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov)

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

Figure 15

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



Source: Grain Inspection, Packers and Stockyards Administration/USDA (www.gipsa.usda.gov); *mbu, this week.

January 28: % change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last week	down 12	n/a	down 5	up 34
Last year (same week)	down 30	down 14	down 30	down 9
3-yr avg. (4-wk mov. avg.)	down 21	down 32	down 22	up 8

Ocean Transportation

Table 17

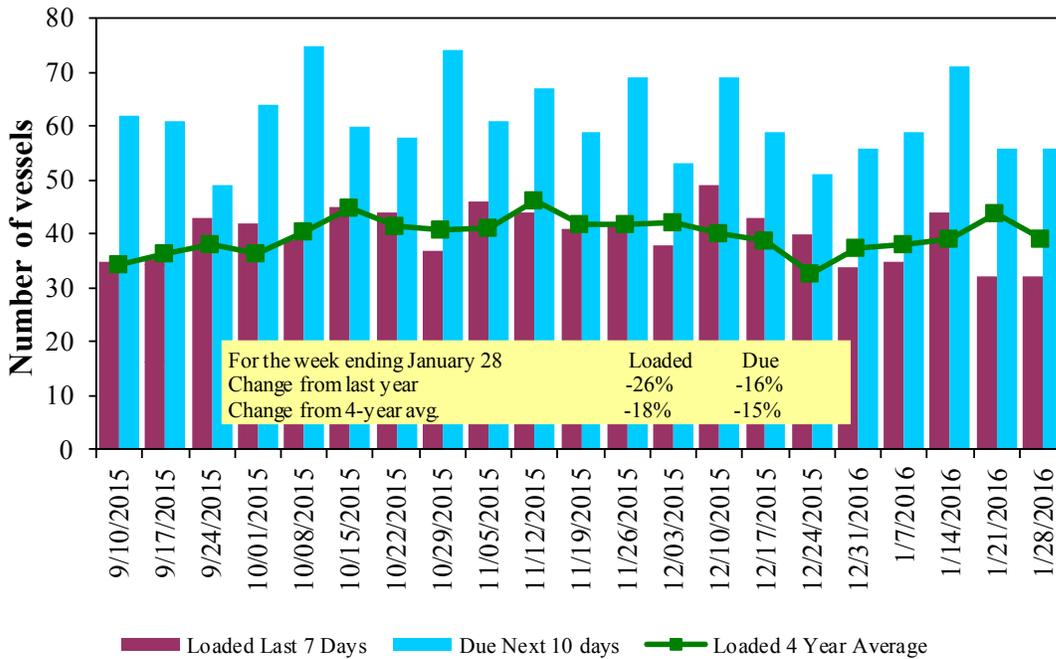
Weekly Port Region Grain Ocean Vessel Activity (number of vessels)

Date	Gulf			Pacific Northwest	Vancouver B.C.
	In port	Loaded 7-days	Due next 10-days	In port	In port
1/28/2016	62	32	56	20	n/a
1/21/2016	52	32	56	18	n/a
2015 range	(25..54)	(28..54)	(36..80)	(3..26)	n/a
2015 avg.	42	38	56	11	n/a

Source: Transportation & Marketing Programs/AMS/USDA

Figure 16

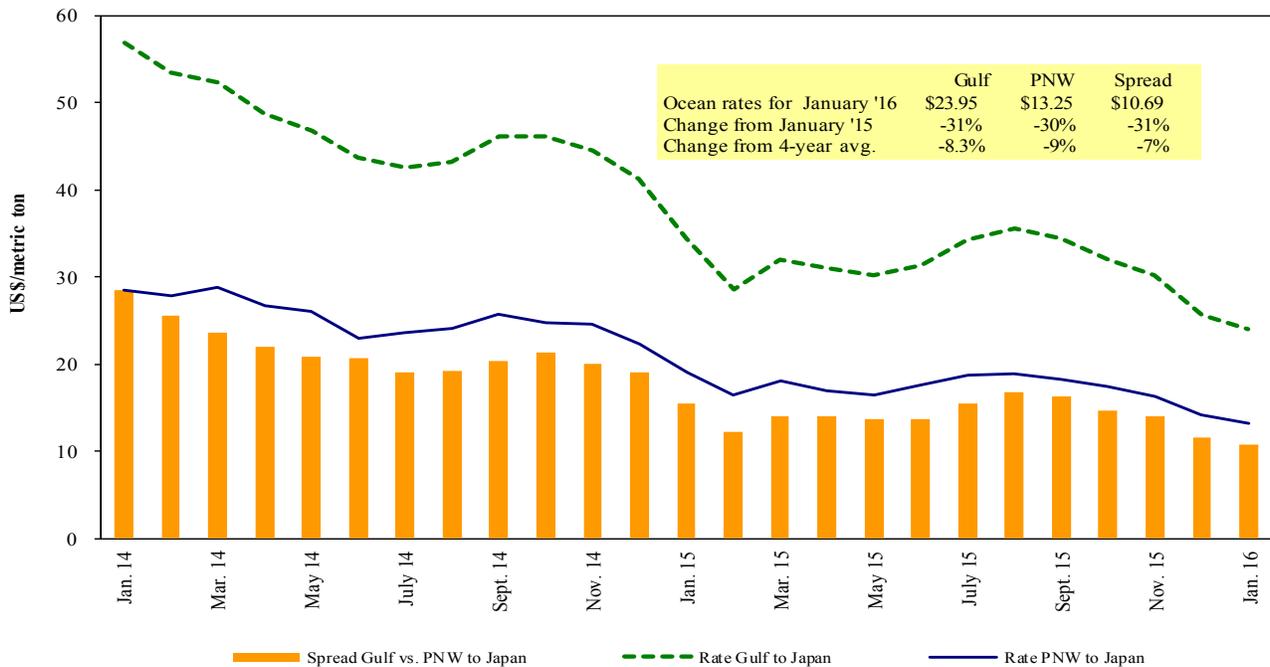
U.S. Gulf¹ Vessel Loading Activity



Source: Transportation & Marketing Programs/AMS/USDA
¹U.S. Gulf includes Mississippi, Texas, and East Gulf.

Figure 17

Grain Vessel Rates, U.S. to Japan



Data Source: O'Neil Commodity Consulting

Table 18

Ocean Freight Rates For Selected Shipments, Week Ending 1/30/2016

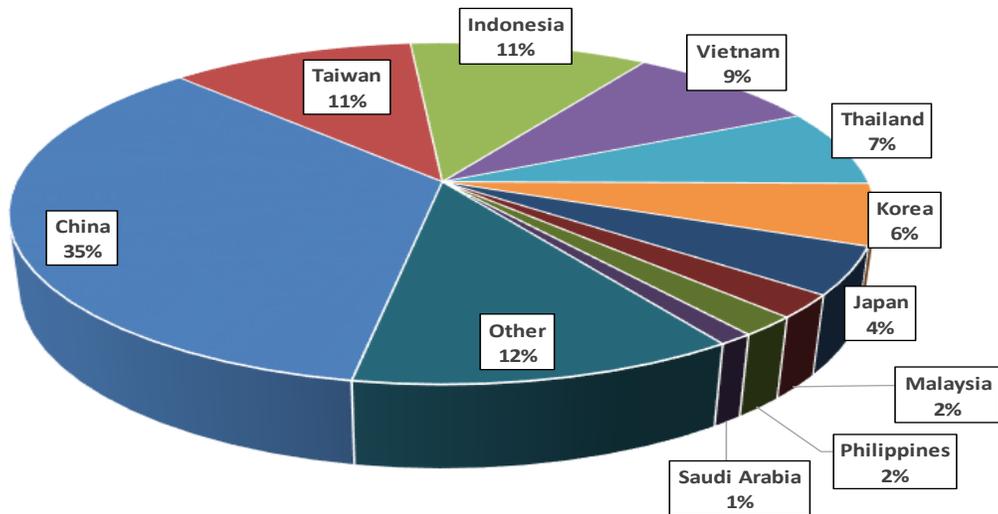
Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US\$/metric ton)
U.S. Gulf	China	Heavy Grain	Jan 10/20	60,000	21.50
Argentina	Morocco	Maize	Jan 9/14	25,000	16.75
U.S. Gulf	China	Heavy Grain	Jan 6/16	54,000	24.00
Argentina	Casablanca	Heavy Grain	Jan 11/16	25,000	17.00
PNW	Bangladesh	Wheat	Dec 7/16	20,040	33.93
Brazil	Japan	Grain	Dec 16/31	60,000	19.75
EC S America	China	Heavy Grain	Feb/Mar 16	60,000	18.50
France	Algeria	Wheat	Jan1/6	30,000	11.00
U.S. Gulf	Mombasa	Sorghum	Jan 4/14	19,100	31.60
U.S. Gulf	Mombasa	Sorghum	Jan 4/15	45,570	22.51
U.S. Gulf	China	Heavy Grain	Jan 15/25	54,000	22.50
Pacific NW	Djibuti	Wheat	Jan 15/25	46,150	38.25
Argentina	Vietnam	Heavy Grain	Jan 25/Feb 5	50,000	19.00
Brazil	Iran	Grain	Jan 25/Feb 5	55,000	17.90
Argentina	Capetown	Corn	Jan 25/30	40,000	12.50
U.S. Gulf	China	Heavy Grain	Jan 28/Feb 7	54,000	23.10
Odessa	Ghent	Grain	Feb 10/14	60,000	7.35
Brazil	China	Heavy Grain	Feb 15/20	60,000	12.60
Paranagua	China	Heavy Grain	Feb 1/10	60,000	15.00

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

In 2014, containers were used to transport 7 percent of total U.S. waterborne grain exports. Approximately 63 percent of U.S. waterborne grain exports in 2014 went to Asia, of which 11 percent were moved in containers. Approximately 95 percent of U.S. waterborne containerized grain exports were destined for Asia.

Figure 18

Top 10 Destination Markets for U.S. Containerized Grain Exports, January-November 2015

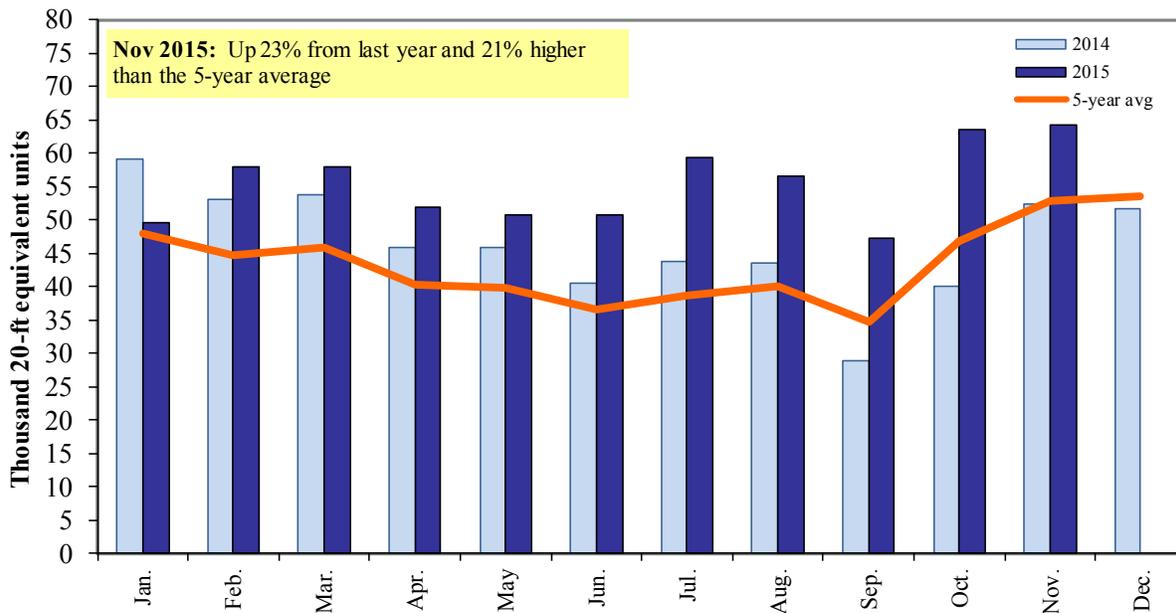


Source: USDA/Agricultural Marketing Service/Transportation Services Division analysis of Port Import Export Reporting Service (PIERS) data

Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 100190, 100200, 100300, 100400, 100590, 100700, 110100, 230310, 110220, 110290, 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, 230310, 110220, 110290, 120100, 230210, 230990, 230330, and 120810.

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