

Grain Transportation Report

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

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November 11, 2021

WEEKLY HIGHLIGHTS

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The next release is November 18, 2021 STB Proposes a Procedural Schedule in the CP-KCS Merger

On October 29, Canadian Pacific Railway (CP) and Kansas City Southern Railway (KCS) filed a merger application at the Surface Transportation Board (STB). If STB approved the merger, the new railroad would be called Canadian Pacific Kansas City (CPKC) and would offer the only single-line service connecting Canada to Mexico. Based on 2017-21 originated carload numbers from STB, CP and KCS are the smallest of the Class I railroads. With their combined traffic, CPKC would still be the smallest Class I. However, because there are only seven Class I railroads currently, any merger is significant. So far in 2021, CP has originated 7.3 percent of grain carloads and KCS originated 2.7 percent. However, KCS represents 18 percent of received grain carloads so far in 2021, second only to Union Pacific, which reflects KCS's role as a critical gateway for receiving and delivering railed grain to Mexico. On November 2, STB proposed a procedural schedule for application review that extends through July of next year. Comments on the proposed schedule are due November 12. If the proposed schedule is unchanged, comments from the public would be due January 27, 2022 and replies would be due March 23, 2022.

DOT Partners With State of California To Address Supply Chain Infrastructure

On October 28, the State of California and the U.S. Department of Transportation (DOT) announced a partnership to expedite several existing and new projects to upgrade port and other supply-chain infrastructure. These projects represent long-term plans to alleviate congestion at Southern California's ports and improve the capacity and resiliency of the goods supply chain. To fund the upgrades, the partnership will help match project sponsors with "innovative financing opportunities," which partly include DOT credit assistance programs. Possible projects to be funded through this agreement include port-specific upgrades; expanded capacity for freight rail; development of inland port facilities for more warehouse storage; railyard and truck electrification; highway upgrades to improve truck travel times; and expanded land ports of entry.

Minnesota Waives Hours-of-Service Regulations To Transport Feed

On November 3, the Minnesota Governor signed executive order 21-33, which supports Minnesota livestock producers who have had difficulty accessing feed because of the State's historic drought. In effect for 30 days (starting November 3), the order waives hours-of-service (HOS) regulations to give livestock producers access to high-quality feed. Since July, the Governor has issued executive orders relaxing HOS restrictions for drivers and vehicles transporting livestock, hay, forage, water supplies, and supplemental feed commodities.

Snapshots by Sector

For the week ending October 28 unshipped balances of wheat, corn, and soybeans for marketing year 2021/22 totaled 50.9 million metric tons (mmt), down 21 percent from same time last year and down less than 1 percent from the previous week. Net corn export sales were 1.224 mmt, up 37 percent from the previous week. Net soybean export sales were 1.864 mmt, up 58 percent from the previous week. Net weekly wheat export sales were 0.400 mmt, up 49 percent from the previous week.

Rail

Export Sales

U.S. Class I railroads originated 24,711 **grain carloads** during the week ending October 30. This was a 4-percent decrease from the previous week, 9 percent less than last year, and 3 percent more than the 3-year average.

Average November shuttle **secondary railcar** bids/offers (per car) were \$375 above tariff for the week ending November 4. This was \$94 more than last week and \$10 more than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending November 6, **barged grain movements** totaled 611,996 tons. This was 26 percent lower than the previous week and 36 percent lower than the same period last year.

For the week ending November 6, 377 grain barges **moved down river**—144 barges fewer than the previous week. There were 878 grain barges unloaded in the New Orleans region, 11 percent more than last week.

Ocean

For the week ending November 4, 38 occangoing grain vessels were loaded in the Gulf—9 percent more than the same period last year. Within the next 10 days (starting November 5), 66 vessels were expected to be loaded—8 percent more than the same period last year.

As of November 4, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$84.50. This was 6 percent lower than the previous week. The rate from the Pacific Northwest to Japan was \$45.25 per mt, 8 percent lower than the previous week.

Fuel

For the week ending November 8, the U.S. average diesel fuel price increased by .3 cents from the previous week to \$3.73 per gallon, \$1.35 above the same week last year. This is the 8th consecutive week that the national average diesel price has increased.

Feature Article/Calendar

Transportation and Landed Costs of Grain to Mexico in Third Quarter 2021

Mexico continues to be one of the leading importers of U.S. grain (*GTR* tables 13-15). Low transportation and landed costs for U.S.-Mexico routes are vital to the competitiveness of U.S. grain in Mexico and globally. U.S. grain is transported to Mexico either by cross-border land movements or by sea movements to Mexican ports for inland distribution. This article examines the costs of transporting U.S. grain to Mexico over land to Guadalajara (land routes) and by sea to Veracruz (water routes), tracking changes over time (table 1).

| Table 1. Q | uarterly c | osts of tr | ansportii | ng U.S. gr | ain to Vera | acruz and | d Guadal | ajara, Me | exico | |
|----------------------------|----------------------|----------------------|----------------------|------------|--------------|----------------------|----------------------|----------------------|-------------|--------------|
| | | Water | route (to V | eracruz) | | | Land ro | ute (to Gu | uadalajara) | |
| | | \$ | /metric tor | 1 | | | | \$/metric | ton | |
| | 2020 | 2021 | 2021 | Percer | t change | 2020 | 2021 | 2021 | Percer | nt change |
| | 3 rd qtr. | 2 nd qtr. | 3 rd qtr. | Yr. to yr. | Qtr. to qtr. | 3 rd qtr. | 2 nd qtr. | 3 rd qtr. | Yr. to yr. | Qtr. to qtr. |
| | | | | | Cor | <u>'n</u> | | | | |
| Origin | | | IL | | | | | IA | | |
| Truck | 12.38 | 13.99 | 13.19 | 6.5 | -5.7 | 3.93 | 4.98 | 4.93 | 25.4 | -1.0 |
| Rail ¹ | - | - | - | - | - | 94.63 | 96.73 | 97.06 | 2.6 | 0.3 |
| Barge ² | 21.58 | 17.29 | 22.10 | 2.4 | 27.8 | - | - | - | - | - |
| Ocean ³ | 14.39 | 23.75 | 27.68 | 92.4 | 16.5 | - | - | - | - | - |
| Total transportation cost | 48.35 | 55.03 | 62.97 | 30.2 | 14.4 | 98.56 | 101.71 | 101.99 | 3.5 | 0.3 |
| Farm value ⁴ | 128.34 | 229.91 | 232.93 | 81.5 | 1.3 | 126.11 | 230.57 | 238.83 | 89.4 | 3.6 |
| Landed cost ⁵ | 176.69 | 284.94 | 295.90 | 67.5 | 3.8 | 224.67 | 332.28 | 340.82 | 51.7 | 2.6 |
| Transport % of landed cost | 27 | 19 | 21 | - | - | 44 | 31 | 30 | - | _ |
| | • | | | | Soybe | eans | | | | |
| Origin | | | IL | | | | | NE | | |
| Truck | 12.38 | 13.99 | 13.19 | 6.5 | -5.7 | 3.93 | 4.98 | 4.93 | 25.4 | -1.0 |
| Rail | - | - | - | - | - | 97.11 | 99.21 | 99.56 | 2.5 | 0.4 |
| Barge | 21.58 | 17.29 | 22.10 | 2.4 | 27.8 | - | - | - | - | - |
| Ocean | 14.39 | 23.75 | 27.68 | 92.4 | 16.5 | - | - | - | - | - |
| Total transportation cost | 48.35 | 55.03 | 62.97 | 30.2 | 14.4 | 101.04 | 104.19 | 104.49 | 3.41 | 0.3 |
| Farm value | 331.06 | 527.88 | 492.37 | 48.7 | -6.7 | 312.81 | 519.31 | 485.02 | 55.1 | -6.6 |
| Landed cost | 379.41 | 582.91 | 555.34 | 46.4 | -4.7 | 413.85 | 623.50 | 589.51 | 42.4 | -5.5 |
| Transport % of landed cost | 13 | 9 | 11 | - | - | 24 | 17 | 18 | - | - |
| | | | | | Whe | eat | | | | |
| Origin | | | KS | | | | | KS | | |
| Truck | 3.93 | 4.98 | 4.93 | 25.4 | -1.0 | 3.93 | 4.98 | 4.93 | 25.4 | -1.0 |
| Rail | 42.07 | 42.07 | 42.07 | 0.0 | 0.0 | 81.17 | 83.37 | 83.99 | 3.5 | 0.7 |
| Ocean | 14.39 | 23.75 | 27.68 | 92.4 | 16.5 | - | - | - | - | - |
| Total transportation cost | 60.39 | 70.80 | 74.68 | 23.7 | 5.5 | 85.10 | 88.35 | 88.92 | 4.5 | 0.6 |
| Farm value | 158.37 | 227.44 | 239.45 | 51.2 | 5.3 | 158.37 | 227.44 | 239.45 | 51.2 | 5.3 |
| Landed cost | 218.76 | 298.24 | 314.13 | 43.6 | 5.3 | 243.47 | 315.79 | 328.37 | 34.9 | 4.0 |
| Transport % of landed cost | 28 | 24 | 24 | - | - | 35 | 28 | 27 | - | - |

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

Note: "-" indicates data not required or applicable. Total may not add exactly because of rounding.

Source: Compiled by the USDA, Agricultural Marketing Service.

Quarter-to-quarter transportation costs. Total transportation costs for U.S. corn, soybeans, and wheat through the water routes increased from second quarter 2021 to third quarter 2021 (quarter to quarter). Rising water-route shipping costs reflected higher barge and ocean freight rates. Land-route shipping costs remained relatively stable, as falling truck rates

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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.

²Due to the closure of several lock and dam facilities on Illinois River between July 1 and October 27, 2020, mid-Mississippi barge rate was substituted for Illinois rate as the benchmark for calculating cost index during the closures.

³Source for ocean freight rates: O'Neil Commodity Consulting.

⁴Source for farm values: USDA, National Agricultural Statistics Service.

⁵Landed cost is total transportation cost plus farm value.

¹ Water routes typically involve truck transportation to barge to oceangoing vessel, or truck to rail to oceangoing vessel.

mostly offset a slight rise in rail rates (public tariff, plus fuel surcharge). Barge rates rose amid high demand for empty barges, more scrapping activity, and new logistical challenges related to Hurricane Ida (<u>GTR</u>, October 28, 2021).

Responding to strong demand for shipping bulk items, ocean freight rates rose to their highest levels since second quarter 2008, while congestion and other logistic inefficiencies constricted vessel supply (GTR, October 14, 2021). Despite already high diesel fuel prices, which continued rising in the third quarter, truck rates fell. Quarter to quarter, the trucking use index in the Midwest was down, reflecting falling demand for trucking services (Grain Truck and Ocean Rate Advisory). Rail tariff rates remained relatively unchanged.

Year-to-year transportation costs. From third quarter 2020 to third quarter 2021 (year to year), total costs of shipping all grain (U.S. corn, soybeans, and wheat) to Mexico by the water routes rose because of higher truck, barge, and ocean rates. Likewise, total costs of shipping all grain to Mexico by the land routes rose because of higher truck and rail tariff rates.

Quarter-to-quarter landed costs. Quarter to quarter, landed costs rose for corn and wheat shipped via the water and land routes. Increased landed costs reflected both higher farm values and higher transport costs—though the rise in transport costs was less sharp for the land routes (table 1 and figs. 1 and 2). Falling farm values pushed down soybean landed costs. The share of landed costs comprising transportation ranged from 11 percent to 24 percent for the water routes and from 18 percent to 30 percent for the land routes.

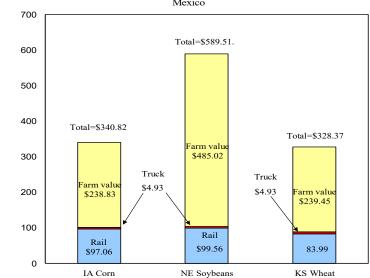
Year-to-year landed costs. Year to year, landed costs increased for both waterborne and land-route grains, because of both higher transportation costs and higher farm values.

U.S. Exports to Mexico. According to <u>USDA's</u>
<u>Federal Grain Inspection Service</u>, Mexico imported
3.62 million metric tons (mmt) of U.S. corn, 0.91 mmt
of U.S. soybeans, and 1.23 mmt of U.S. wheat in third
quarter 2021. Quarter to quarter, U.S. inspections for
export to Mexico decreased 18 percent for corn,
decreased 1 percent for soybeans, and increased 22
percent for wheat. Year to year, U.S. inspections

Figure 1. Third-quarter 2021 water-route landed costs to Veracruz, Mexico 600 Total=\$555.33 500 Jollars per metric ton 400 Total=\$314.13 Total=\$295.89 300 Farm value \$492.37 Truck 200 \$232.93 \$4.93 Truck 100 \$42.07 \$27.68 Rail \$27.68 0 IL Soybeans KS Wheat

> Note: IL = Illinois; KS = Kansas. Source: USDA, Agricultural Marketing Service.

Figure 2. Third-quarter land-route landed costs to Guadalajara, Mexico



Note: IA = Iowa; NE = Nebraska; KS = Kansas. Source: USDA, Agricultural Marketing Service.

destined to Mexico rose 12 percent for corn, fell 12 percent for soybeans, and rose 70 percent for wheat. Despite the increases in farm prices and transportation costs, total U.S. grain shipments to Mexico have been strong, as corn and wheat shipments have increased year to year.

Dollars per metric ton

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Grain Transportation Indicators

Table 1 **Grain transport cost indicators**¹

| | Truck | Ra | il | Barge | Ocean | |
|---------------------|-------|-------------|---------|-------|-------|---------|
| For the week ending | | Non-Shuttle | Shuttle | | Gulf | Pacific |
| 11/10/21 | 250 | 297 | 245 | 282 | 378 | 321 |
| 11/03/21 | 250 | 297 | 241 | 263 | 400 | 348 |

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.

Source: USDA, Agricultural Marketing Service.

Table 2

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

| Commodity | Origin-destination | 11/5/2021 | 10/29/2021 |
|-----------|--------------------|-----------|------------|
| Corn | IL-Gulf | -0.78 | -0.80 |
| Corn | NE-Gulf | -0.85 | -0.81 |
| Soybean | IA-Gulf | -1.08 | -1.16 |
| HRW | KS-Gulf | -2.75 | -2.75 |
| HRS | ND-Portland | -2.49 | -2.40 |

Note: nq = no quote; n/a = not available; HRW = hard red winter wheat; HRS = hard red spring wheat.

Source: USDA, Agricultural Marketing Service.

Sources...U.S. Inland

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 Year Ago 11/6/2020 10/29/2021 11/5/2021 7.7740 5.5940 5.5720 10.6740 7.8320 6.0560 5.41 • 11.74 ND 11.81 NA 5.31 7.29 5.67 11.28 Elevator Bid 30-day to Arrive

Rail Transportation

Table 3

Rail deliveries to port (carloads)¹

| rean denveries to port (carroa | 45) | | | | | | |
|---|-------------|------------|-----------|------------|---------|--------------------|---------------------|
| | Mississippi | | Pacific | Atlantic & | | | Cross-border |
| For the week ending | Gulf | Texas Gulf | Northwest | East Gulf | Total | Week ending | Mexico ³ |
| 11/03/2021 ^p | 1,539 | 1,319 | 8,389 | 850 | 12,097 | 10/30/2021 | 2,950 |
| 10/27/2021 ^r | 1,314 | 1,114 | 9,581 | 1,186 | 13,195 | 10/23/2021 | 2,973 |
| 2021 YTD ^r | 42,781 | 56,581 | 247,926 | 15,508 | 362,796 | 2021 YTD | 122,360 |
| 2020 YTD ^r | 29,025 | 46,289 | 227,247 | 15,003 | 317,564 | 2020 YTD | 106,691 |
| 2021 YTD as % of 2020 YTD | 147 | 122 | 109 | 103 | 114 | % change YTD | 115 |
| Last 4 weeks as % of 2020 ² | 72 | 70 | 108 | 80 | 95 | Last 4wks. % 2020 | 130 |
| Last 4 weeks as % of 4-year avg. ² | 113 | 145 | 142 | 126 | 138 | Last 4wks. % 4 yr. | 108 |
| Total 2020 | 45,294 | 64,116 | 299,882 | 24,458 | 433,750 | Total 2020 | 126,407 |
| Total 2019 | 40,974 | 51,167 | 251,181 | 16,192 | 359,514 | Total 2019 | 127,622 |

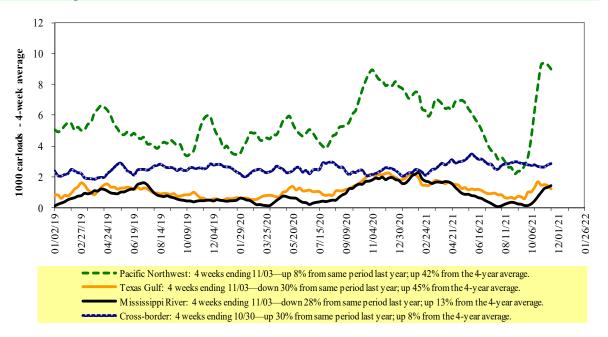
¹Data is incomplete as it is voluntarily provided.

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

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.

² Compared with same 4-weeks in 2020 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.

Table 4

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

| | Cindo I Inn turito gram tur vantom (gram turitana originaton) | | | | | | | |
|-----------------------------------|---|---------|---------|--------|---------|------------|---------|---------|
| For the week ending: | Ea | ast | | West | | U.S. total | Car | nada |
| 10/30/2021 | CSXT | NS | BNSF | KCS | UP | U.S. total | CN | CP |
| This week | 2,309 | 2,174 | 12,368 | 1,389 | 6,471 | 24,711 | 4,735 | 4,864 |
| This week last year | 1,903 | 2,816 | 14,125 | 1,421 | 6,786 | 27,051 | 5,824 | 6,054 |
| 2021 YTD | 76,191 | 101,597 | 498,262 | 52,313 | 264,204 | 992,567 | 176,593 | 204,132 |
| 2020 YTD | 73,343 | 104,593 | 492,291 | 47,844 | 235,920 | 953,991 | 188,607 | 208,282 |
| 2021 YTD as % of 2020 YTD | 104 | 97 | 101 | 109 | 112 | 104 | 94 | 98 |
| Last 4 weeks as % of 2020* | 94 | 76 | 94 | 115 | 97 | 94 | 77 | 82 |
| Last 4 weeks as % of 3-yr. avg.** | 95 | 86 | 104 | 133 | 120 | 106 | 91 | 90 |
| Total 2020 | 91,659 | 129,813 | 613,630 | 57,782 | 296,701 | 1,189,585 | 238,143 | 261,778 |

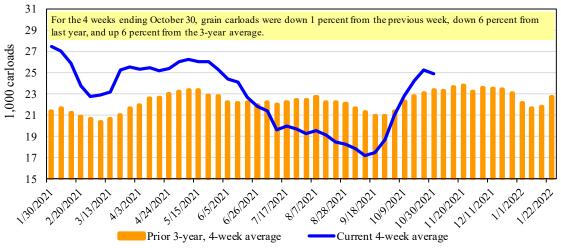
^{*}The past 4 weeks of this year as a percent of the same 4 weeks last year.

Note: NS = Norfolk Southern; KCS = Kansas City Southern; UP = Union Pacific; CN = Canadian National; CP = Canadian Pacific.

Source: Association of American Railroads.

Figure 3

Total weekly U.S. Class I railroad grain carloads



Source: Association of American Railroads.

Table 5

Railcar auction offerings¹ (\$/car)²

| Fo | or the week ending: | | | | <u>Deliver</u> | y period | | | |
|-------------------|---|------------|----------------------|------------|----------------------|------------|----------------------|------------|------------|
| | 11/4/2021 | Nov-21 | Nov-20 | Dec-21 | Dec-20 | Jan-22 | Jan-21 | Feb-22 | Feb-21 |
| BNSF ³ | COT grain units COT grain single-car | 0 106 | no bids 0 | 0 69 | no bids 0 | 0 1 | 9 17 | 0 1 | 0 |
| UP ⁴ | GCAS/Region 1 GCAS/Region 2 | n/a n/a | no offer no offer | n/a n/a | no offer no offer | n/a n/a | no offer no offer | n/a n/a | n/a n/a |

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

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

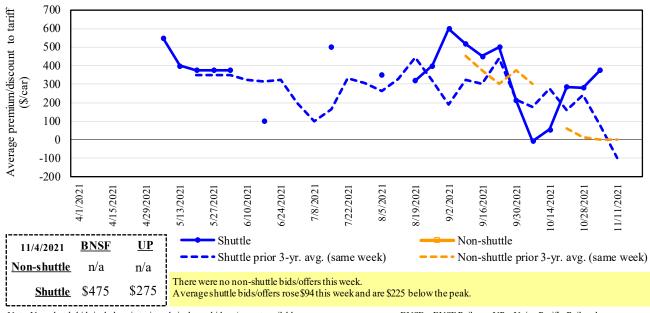
²Average premium/discount to tariff, last auction. n/a = not available.

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

⁴UP - GCAS = Union Pacific Railroad Grain Car Allocation System.

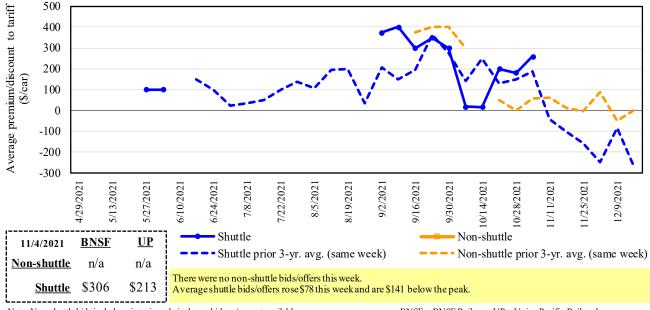
The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/ supply.

Figure 4
Bids/offers for railcars to be delivered in November 2021, secondary market



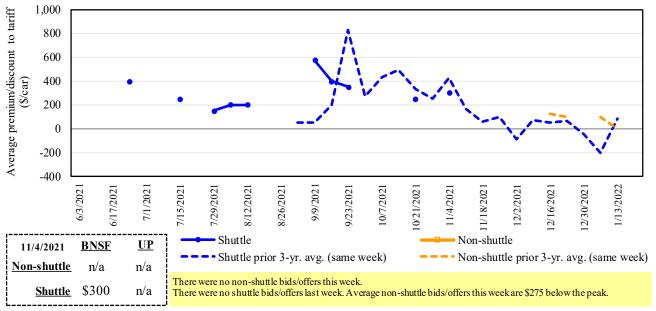
Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year; BNSF = BNSF Railway; UP = Union Pacific Railroad. Source: USDA, Agricultural Marketing Service.

Figure 5
Bids/offers for railcars to be delivered in December 2021, secondary market



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

Figure 6
Bids/offers for railcars to be delivered in January 2022, secondary market



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

Table 6

Weekly secondary railcar market (\$/car)¹

| | For the week ending: | | | De | livery period | | |
|----------|----------------------------|--------|--------|--------|---------------|--------|--------|
| | 11/4/2021 | Nov-21 | Dec-21 | Jan-22 | Feb-22 | Mar-22 | Apr-22 |
| | BNSF-GF | n/a | n/a | n/a | n/a | n/a | n/a |
| le | Change from last week | n/a | n/a | n/a | n/a | n/a | n/a |
| -shuttle | Change from same week 2020 | n/a | n/a | n/a | n/a | n/a | n/a |
| Non-s | 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 2020 | n/a | n/a | n/a | n/a | n/a | n/a |
| | BNSF-GF | 475 | 306 | 300 | 300 | 150 | (200) |
| | Change from last week | 232 | 143 | n/a | 0 | n/a | 0 |
| Shuttle | Change from same week 2020 | 8 | (294) | n/a | n/a | n/a | n/a |
| Shu | UP-Pool | 275 | 213 | n/a | n/a | n/a | n/a |
| | Change from last week | (44) | 13 | n/a | n/a | n/a | n/a |
| | Change from same week 2020 | 13 | (188) | n/a | n/a | n/a | n/a |

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

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

 $BNSF = BNSF \; Railway ; UP = Union \; Pacific \; Railroad.$

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. Together with **fuel surcharges** and any **auction and secondary rail** values, the tariff rail rate constitutes 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. However, during times of high rail demand or short supply, high auction and secondary rail values can exceed the cost of the tariff rate plus fuel surcharge.

Table 7

Tariff rail rates for unit and shuttle train shipments¹

| | for unit and shuttle tr | um simpiments | | Fuel | | | Percent |
|-------------------|----------------------------|---------------------------------|----------|------------|-------------------|----------------------|------------------|
| | | | Tariff | surcharge_ | Tariff plus surch | | change |
| November 2021 | Origin region ³ | Destination region ³ | rate/car | per car | metric ton | bus hel ² | Y/Y ⁴ |
| <u>Unit train</u> | | | | | | | |
| Wheat | Wichita, KS | St. Louis, MO | \$3,695 | \$132 | \$38.00 | \$1.03 | 3 |
| | Grand Forks, ND | Duluth-Superior, MN | \$3,658 | \$0 | \$36.33 | \$0.99 | -13 |
| | Wichita, KS | Los Angeles, CA | \$7,290 | \$0 | \$72.39 | \$1.97 | 2 |
| | Wichita, KS | New Orleans, LA | \$4,525 | \$231 | \$47.23 | \$1.29 | 4 |
| | Sioux Falls, SD | Galveston-Houston, TX | \$7,026 | \$0 | \$69.77 | \$1.90 | 3 |
| | Colby, KS | Galveston-Houston, TX | \$4,801 | \$254 | \$50.19 | \$1.37 | 4 |
| | Amarillo, TX | Los Angeles, CA | \$5,121 | \$353 | \$54.36 | \$1.48 | 5 |
| Corn | Champaign-Urbana, IL | New Orleans, LA | \$4,000 | \$262 | \$42.32 | \$1.07 | 7 |
| | Toledo, OH | Raleigh, NC | \$8,130 | \$0 | \$80.73 | \$2.05 | 4 |
| | Des Moines, IA | Davenport, IA | \$2,505 | \$55 | \$25.43 | \$0.65 | 4 |
| | Indianapolis, IN | Atlanta, GA | \$6,227 | \$0 | \$61.84 | \$1.57 | 4 |
| | Indianapolis, IN | Knoxville, TN | \$5,247 | \$0 | \$52.11 | \$1.32 | 4 |
| | Des Moines, IA | Little Rock, AR | \$4,000 | \$163 | \$41.34 | \$1.05 | 6 |
| | Des Moines, IA | Los Angeles, CA | \$5,880 | \$474 | \$63.10 | \$1.60 | 8 |
| Soybeans | Minneapolis, MN | New Orleans, LA | \$3,631 | \$342 | \$39.45 | \$1.07 | 9 |
| | Toledo, OH | Huntsville, AL | \$6,714 | \$0 | \$66.67 | \$1.81 | 2 |
| | Indianapolis, IN | Raleigh, NC | \$7,422 | \$0 | \$73.70 | \$2.01 | 4 |
| | Indianapolis, IN | Huntsville, AL | \$5,367 | \$0 | \$53.30 | \$1.45 | 2 |
| | Champaign-Urbana, IL | New Orleans, LA | \$4,745 | \$262 | \$49.72 | \$1.35 | 6 |
| Shuttle train | | | | | | | |
| Wheat | Great Falls, MT | Portland, OR | \$4,193 | \$0 | \$41.64 | \$1.13 | 4 |
| | Wichita, KS | Galveston-Houston, TX | \$4,411 | \$0 | \$43.80 | \$1.19 | 4 |
| | Chicago, IL | Albany, NY | \$6,670 | \$0 | \$66.24 | \$1.80 | 5 |
| | Grand Forks, ND | Portland, OR | \$5,851 | \$0 | \$58.10 | \$1.58 | 3 |
| | Grand Forks, ND | Galveston-Houston, TX | \$5,721 | \$0 | \$56.81 | \$1.55 | -5 |
| | Colby, KS | Portland, OR | \$6,012 | \$416 | \$63.83 | \$1.74 | 5 |
| Corn | Minneapolis, MN | Portland, OR | \$5,380 | \$0 | \$53.43 | \$1.36 | 4 |
| | Sioux Falls, SD | Tacoma, WA | \$5,340 | \$0 | \$53.03 | \$1.35 | 4 |
| | Champaign-Urbana, IL | New Orleans, LA | \$3,920 | \$262 | \$41.52 | \$1.05 | 7 |
| | Lincoln, NE | Galveston-Houston, TX | \$4,080 | \$0 | \$40.52 | \$1.03 | 5 |
| | Des Moines, IA | Amarillo, TX | \$4,420 | \$205 | \$45.92 | \$1.17 | 6 |
| | Minneapolis, MN | Tacoma, WA | \$5,380 | \$0 | \$53.43 | \$1.36 | 4 |
| | Council Bluffs, IA | Stockton, CA | \$5,300 | \$0 | \$52.63 | \$1.34 | 4 |
| Soybeans | Sioux Falls, SD | Tacoma, WA | \$6,050 | \$0 | \$60.08 | \$1.64 | 3 |
| - | Minneapolis, MN | Portland, OR | \$6,100 | \$0 | \$60.58 | \$1.65 | 3 |
| | Fargo, ND | Tacoma, WA | \$5,950 | \$0 | \$59.09 | \$1.61 | 3 |
| | Council Bluffs, IA | New Orleans, LA | \$4,975 | \$302 | \$52.40 | \$1.43 | 6 |
| | Toledo, OH | Huntsville, AL | \$4,954 | \$0 | \$49.20 | \$1.34 | 0 |
| | Grand Island, NE | Portland, OR | \$5,360 | \$426 | \$57.45 | \$1.56 | 8 |

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

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

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.

Table 8

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

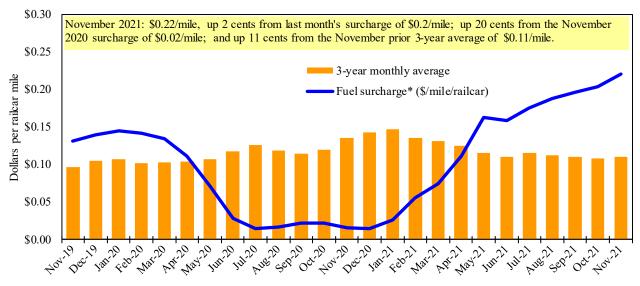
| Date | : Novembe | er 2021 | | Fuel | Tari | ff rate plus | Percent |
|-----------|-----------|----------------------|----------------------|----------------------|-------------------------|-----------------------|---------------------|
| | Origin | | Tariff rate | surcharge | fuel surc | harge per: | change ⁴ |
| Commodity | state | Destination region | per car ¹ | per car ² | metric ton ³ | bus he l ³ | Y/Y |
| Wheat | MT | Chihuahua, CI | \$7,699 | \$0 | \$78.67 | \$2.14 | 4 |
| | OK | Cuautitlan, EM | \$6,900 | \$181 | \$72.35 | \$1.97 | 5 |
| | KS | Guadalajara, JA | \$7,619 | \$711 | \$85.11 | \$2.31 | 6 |
| | TX | Salinas Victoria, NL | \$4,420 | \$111 | \$46.30 | \$1.26 | 4 |
| Corn | IA | Guadalajara, JA | \$9,102 | \$632 | \$99.46 | \$2.52 | 6 |
| | SD | Celaya, GJ | \$8,300 | \$0 | \$84.81 | \$2.15 | 2 |
| | NE | Queretaro, QA | \$8,322 | \$384 | \$88.95 | \$2.26 | 4 |
| | SD | Salinas Victoria, NL | \$6,905 | \$0 | \$70.55 | \$1.79 | 0 |
| | MO | Tlalnepantla, EM | \$7,687 | \$374 | \$82.37 | \$2.09 | 4 |
| | SD | Torreon, CU | \$7,825 | \$0 | \$79.95 | \$2.03 | 2 |
| Soybeans | MO | Bojay (Tula), HG | \$8,647 | \$588 | \$94.35 | \$2.57 | 5 |
| | NE | Guadalajara, JA | \$9,207 | \$611 | \$100.31 | \$2.73 | 4 |
| | IA | El Castillo, JA | \$9,510 | \$0 | \$97.17 | \$2.64 | 1 |
| | KS | Torreon, CU | \$8,109 | \$431 | \$87.26 | \$2.37 | 4 |
| Sorghum | NE | Celaya, GJ | \$7,932 | \$562 | \$86.79 | \$2.20 | 6 |
| | KS | Queretaro, QA | \$8,108 | \$226 | \$85.15 | \$2.16 | 2 |
| | NE | Salinas Victoria, NL | \$6,713 | \$182 | \$70.44 | \$1.79 | 2 |
| | NE | Torreon, CU | \$7,225 | \$399 | \$77.90 | \$1.98 | 5 |

¹Rates are based upon published tariff rates for high-capacity shuttle trains. Shuttle trains are available for qualified

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.

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

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 surchage; Y/Y = year over year.

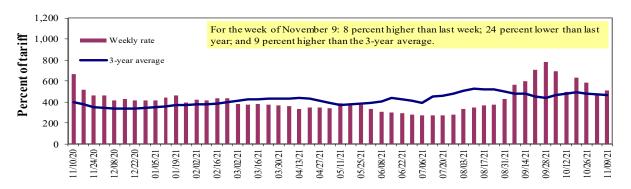
^{*} Beginning January 2009, the Canadian Pacific fuel surcharge is computed by a monthly average of the bi-weekly fuel surcharge.

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

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.

Table 9
Weekly barge freight rates: Southbound only

| | gg | Twin Cities | Mid- Mississippi | Lower Illinois River | St. Louis | Cincinnati | Lower Ohio | Cairo- Memphis |
|-------------------|-------------------------------------|----------------|---------------------|----------------------------|----------------|----------------|----------------|-------------------|
| Rate ¹ | 11/9/2021 11/2/2021 | 445 496 | 500 488 | 508 473 | 416 404 | 498 481 | 498 481 | 390 359 |
| \$/ton | 11/9/2021 11/9/2021 11/2/2021 | 27.55 30.70 | 26.60 25.96 | 23.57 21.95 | 16.60 16.12 | 23.36 22.56 | 20.12 19.43 | 12.25 11.27 |
| Curren | t week % chang | e from the s | same week: | | | | | |
| | Last year 3-year avg. ² | -33 -12 | -28 4 | -24 28 | -38 10 | -32 25 | -32 25 | -43 8 |
| Rate ¹ | December February | - | - | 414 421 | 325 302 | 352 330 | 352 330 | 294 276 |

¹Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); ²4-week moving average; ton = 2,000 pounds; "-" not available due to lock closure. Source: USDA, A gricultural 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 are included in tables on this page. The 1976 benchmark rates per ton are provided in map.

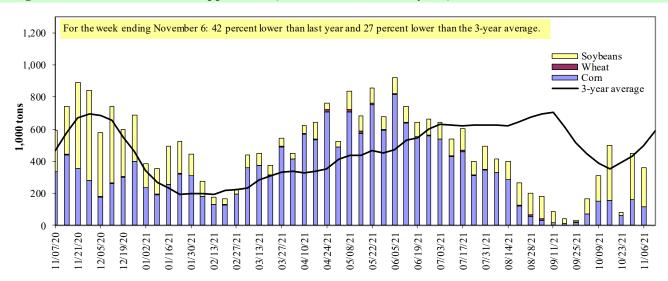


Map Credit: USDA, Agricultural Marketing Service

^{*}Source: 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 11/06/2021 | Corn | Wheat | Soybe ans | Other | Total |
|--|--------|-------|-----------|-------|--------|
| Mississippi River | | | - | | |
| Rock Island, IL (L15) | 31 | 2 | 101 | 0 | 134 |
| Winfield, MO (L25) | 84 | 0 | 179 | 0 | 262 |
| Alton, IL (L26) | 104 | 0 | 213 | 0 | 317 |
| Granite City, IL (L27) | 117 | 0 | 243 | 0 | 360 |
| Illinois River (La Grange) | 27 | 0 | 5 | 0 | 32 |
| Ohio River (Olmsted) | 121 | 5 | 85 | 0 | 212 |
| Arkansas River (L1) | 0 | 4 | 36 | 0 | 40 |
| Weekly total - 2021 | 238 | 10 | 365 | 0 | 612 |
| Weekly total - 2020 | 332 | 12 | 616 | 1 | 960 |
| 2021 YTD ¹ | 20,728 | 1,502 | 8,132 | 245 | 30,607 |
| 2020 YTD ¹ | 15,214 | 1,633 | 14,053 | 172 | 31,072 |
| 2021 as % of 2020 YTD | 136 | 92 | 58 | 142 | 99 |
| Last 4 weeks as % of 2020 ² | 88 | 53 | 59 | 26 | 68 |
| Total 2020 | 18,942 | 1,765 | 19,205 | 237 | 40,149 |

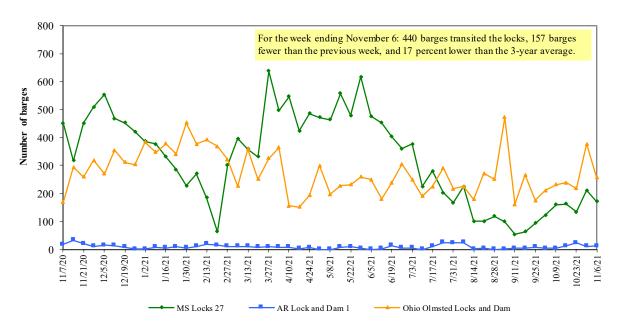
¹ Weekly total, YTD (year-to-date), and calendar year total include MI/27, OH/Olmsted, and AR/1; Other refers to oats, barley, sorghum, and rye. Total may not add exactly due to rounding.

Note: L (as in "L15") refers to a lock, locks, or locks and dam facility.

Source: U.S. Army Corps of Engineers.

² As a percent of same period in 2020.

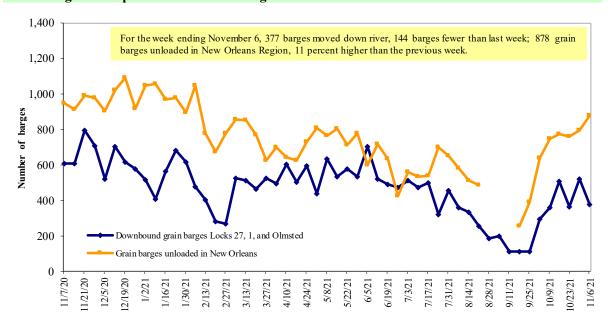
Figure 11
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



Source: U.S. Army Corps of Engineers.

Figure 12

Grain barges for export in New Orleans region



Note: Olmsted = Olmsted Locks and Dam.

Source: U.S. Army Corps of Engineers and USDA, Agricultural Marketing Service.

Truck Transportation

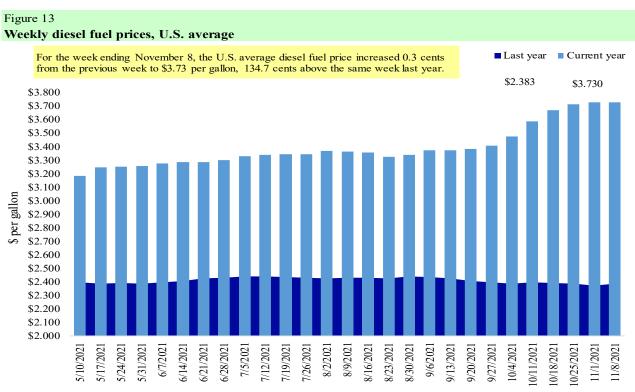
The weekly diesel price provides a proxy for trends in U.S. truck rates as diesel fuel is a significant expense for truck grain movements.

Table 11 Retail on-highway diesel prices, week ending 11/8/2021 (U.S. \$/gallon)

| | | | Change | e from |
|--------|----------------------------|-------|----------|----------|
| Region | Location | Price | Week ago | Year ago |
| I | East Coast | 3.712 | -0.005 | 1.262 |
| | New England | 3.656 | 0.005 | 1.102 |
| | Central Atlantic | 3.858 | -0.004 | 1.213 |
| | Lower Atlantic | 3.624 | -0.007 | 1.328 |
| II | Midwest | 3.633 | -0.006 | 1.372 |
| III | Gulf Coast | 3.482 | -0.004 | 1.350 |
| IV | Rocky Mountain | 3.833 | 0.019 | 1.461 |
| V | West Coast | 4.371 | 0.047 | 1.434 |
| | West Coast less California | 3.974 | 0.042 | 1.402 |
| | California | 4.701 | 0.050 | 1.464 |
| Total | United States | 3.730 | 0.003 | 1.347 |

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.



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)

| | · c cirport | 3 (2,000 2 | | | | | | | |
|--|-------------|------------|-------|-------|-----|-----------|------------------|--------|---------|
| | Wheat | | | | | Corn | Soybe ans | Total | |
| For the week ending | HRW | SRW | HRS | SWW | DUR | All wheat | | | |
| Export balances ¹ | | | | | | | | | |
| 10/28/2021 | 1,887 | 600 | 1,025 | 729 | 72 | 4,314 | 25,115 | 21,423 | 50,851 |
| This week year ago | 1,633 | 419 | 1,617 | 1,936 | 201 | 5,806 | 26,335 | 31,853 | 63,994 |
| Cumulative exports-marketing year ² | | | | | | | | | |
| 2021/22 YTD | 3,273 | 1,308 | 2,428 | 1,608 | 77 | 8,694 | 5,894 | 10,893 | 25,480 |
| 2020/21 YTD | 4,484 | 938 | 3,109 | 2,081 | 340 | 10,951 | 6,854 | 16,579 | 34,384 |
| YTD 2021/22 as % of 2020/21 | 73 | 140 | 78 | 77 | 23 | 79 | 86 | 66 | 74 |
| Last 4 wks. as % of same period 2020/21* | 104 | 145 | 62 | 34 | 31 | 69 | 93 | 70 | 80 |
| Total 2020/21 | 8,331 | 1,744 | 7,337 | 6,281 | 654 | 24,347 | 66,702 | 60,287 | 151,336 |
| Total 2019/20 | 9,526 | 2,318 | 6,960 | 4,751 | 922 | 24,477 | 42,622 | 43,994 | 111,094 |

¹ Current unshipped (outstanding) export sales to date.

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 importers**¹ **of U.S. corn**

| For the week ending 10/28/2021 | 7 | Total commitments ² | % change | Exports ³ |
|-------------------------------------|------------|--------------------------------|--------------|----------------------|
| | 2021/22 | 2020/21 | current MY | 3-yr. avg. |
| | current MY | last MY | from last MY | 2019-21 |
| | 1,000 mt - | | | |
| Mexico | 8,612 | 6,819 | 26 | 14,817 |
| Japan | 2,491 | 4,501 | (45) | 11,082 |
| China | 11,925 | 10,763 | 11 | 7,920 |
| Columbia | 1,380 | 1,572 | (12) | 4,491 |
| Korea | 72 | 472 | (85) | 3,302 |
| Top 5 importers | 24,481 | 24,127 | 1 | 41,613 |
| Total U.S. corn export sales | 31,009 | 33,189 | (7) | 53,145 |
| % of projected exports | 49% | 47% | | |
| Change from prior week ² | 1,224 | 2,611 | | |
| Top 5 importers' share of U.S. corn | | | | |
| export sales | 79% | 73% | | 78% |
| USDA forecast November 2021 | 63,613 | 70,051 | (9) | |
| Corn use for ethanol USDA forecast, | | | | |
| November 2021 | 133,350 | 127,711 | 4 | |

 $^{^1}$ Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2020/21; marketing year (MY) = Sep 1 - Aug 31.

Note: A red number in parentheses indicates a negative number; mt = metric ton.

Source: USDA, Foreign Agricultural Service.

² Shipped export sales to date; 2021/22 marketing year now in effect for wheat, corn and soybeans.

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 previous week's outstanding sales or accumulated sales.

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

Table 14

Top 5 importers¹ of U.S. soybeans

| For the week ending 10/28/2021 | Total commitments ² | | % change | Exports ³ |
|-------------------------------------|--------------------------------|---------|--------------|----------------------|
| | 2021/22 | 2020/21 | current MY | 3-yr. avg. |
| | current MY | last MY | from last MY | 2018-20 |
| | | | | - 1,000 mt - |
| China | 17,252 | 26,807 | (36) | 21,666 |
| Mexico | 2,218 | 2,701 | (18) | 4,754 |
| Egypt | 984 | 1,316 | (25) | 3,093 |
| Indonesia | 380 | 743 | (49) | 2,325 |
| Japan | 780 | 774 | 1 | 2,275 |
| Top 5 importers | 21,615 | 32,340 | (33) | 34,113 |
| Total U.S. soybean export sales | 32,315 | 48,432 | (33) | 50,758 |
| % of projected exports | 58% | 78% | | |
| change from prior week ² | 1,864 | 1,531 | | |
| Top 5 importers' share of U.S. | | | | |
| soybean export sales | 67% | 67% | | 67% |
| USDA forecast, November 2021 | 55,858 | 61,717 | (9) | |

Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2020/21; marketing year (MY) = Sep 1 - Aug 31.

Note: A red number in parentheses indicates a negative number; mt = metric ton.

Source: USDA, Foreign Agricultural Service.

Table 15

Top 10 importers¹ of all U.S. wheat

| For the week ending 10/28/2021 | Total Co | ommitments ² | % change | Exports ³ |
|-------------------------------------|------------|-------------------------|--------------|----------------------|
| G | 2021/22 | 2020/21 | current MY | 3-yr. avg. |
| | current MY | last MY | from last MY | 2018-20 |
| | | 1,000 mt - | | - 1,000 mt - |
| Mexico | 2,355 | 2,266 | 4 | 3,388 |
| Philippines | 1,887 | 2,347 | (20) | 3,121 |
| Japan | 1,303 | 1,515 | (14) | 2,567 |
| Korea | 818 | 1,139 | (28) | 1,501 |
| Nigeria | 1,410 | 791 | 78 | 1,490 |
| China | 848 | 1,598 | (47) | 1,268 |
| Taiwan | 549 | 766 | (28) | 1,187 |
| Indonesia | 59 | 610 | (90) | 1,131 |
| Thailand | 371 | 495 | (25) | 768 |
| Italy | 154 | 481 | (68) | 681 |
| Top 10 importers | 9,754 | 12,007 | (19) | 17,102 |
| Total U.S. wheat export sales | 13,007 | 16,757 | (22) | 24,617 |
| % of projected exports | 56% | 62% | | |
| change from prior week ² | 400 | 597 | | |
| Top 10 importers' share of U.S. | | | | |
| wheat export sales | 75% | 72% | | 69% |
| USDA forecast, November 2021 | 23,433 | 27,030 | (13) | |

¹ Based on USDA, Foreign Agricultural Service(FAS) marketing year ranking reports for 2020/21; Marketing year (MY) = Jun 1 - May 31.

Note: A red number in parentheses indicates a negative number.

 $Source: USDA, For eign\ Agricultural\ Service.$

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

² Cumulative exports (shipped) + outstanding sales (unshipped), FAS weekly export sales report, or export sales query. The total commitments change (net sales) from prior week could include revisions from the previous week's outstanding and/or accumulated sales.

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

Table 16
Grain inspections for export by U.S. port region (1,000 metric tons)

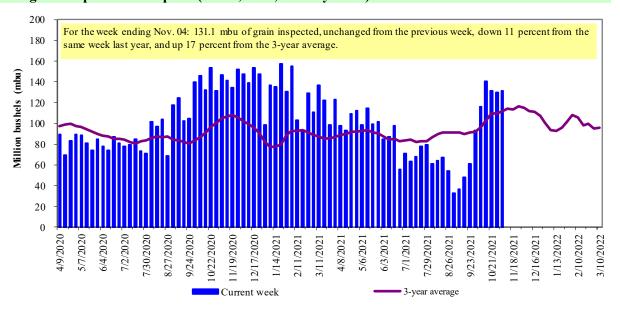
| | For the week ending | Previous | Current week | | | 2021 YTD as | Last 4-we | eeks as % of: | |
|-----------------------|---------------------|----------|------------------|-----------|-----------|---------------|----------------|------------------|-------------|
| Port regions | 11/04/21 | week* | as % of previous | 2021 YTD* | 2020 YTD* | % of 2020 YTD | Last year | Prior 3-yr. avg. | 2020 total* |
| Pacific Northwest | | | | | | | | | |
| Wheat | 60 | 29 | 209 | 12,223 | 13,732 | 89 | 26 | 21 | 15,966 |
| Corn | 0 | 0 | n/a | 12,369 | 8,453 | 146 | 0 | 0 | 9,969 |
| Soybeans | 994 | 915 | 109 | 9,366 | 9,505 | 99 | 112 | 202 | 14,028 |
| Total | 1,055 | 944 | 112 | 33,958 | 31,689 | 107 | 92 | 127 | 39,963 |
| Mississippi Gulf | 2,000 | , | | ••,, •• | 01,000 | 20. | / - | | 0,,,,, |
| Wheat | 108 | 68 | 159 | 2,918 | 3,239 | 90 | 309 | 138 | 3,422 |
| Corn | 366 | 425 | 86 | 34,775 | 24,589 | 141 | 98 | 110 | 28,781 |
| Soybeans | 1,241 | 1,242 | 100 | 17,827 | 26,740 | 67 | 90 | 114 | 38,013 |
| Total | 1,715 | 1,735 | 99 | 55,519 | 54,568 | 102 | 95 | 114 | 70,215 |
| Texas Gulf | -, | -, | | 20,022 | 2 1,2 00 | | | | , |
| Wheat | 0 | 6 | 0 | 3,423 | 3,974 | 86 | 26 | 21 | 4,248 |
| Corn | 0 | 0 | n/a | 506 | 650 | 78 | 8 | 11 | 723 |
| Soybeans | 168 | 119 | 141 | 1,301 | 1,159 | 112 | 96 | 288 | 2,098 |
| Total | 168 | 125 | 134 | 5,230 | 5,783 | 90 | 74 | 131 | 7,068 |
| Interior | | | | | | | | | |
| Wheat | 52 | 35 | 149 | 2,584 | 1,843 | 140 | 85 | 98 | 2,263 |
| Corn | 187 | 221 | 85 | 8,366 | 7,321 | 114 | 125 | 120 | 8,683 |
| Soybeans | 178 | 240 | 74 | 5,261 | 5,939 | 89 | 104 | 116 | 7,274 |
| Total | 417 | 496 | 84 | 16,211 | 15,103 | 107 | 110 | 116 | 18,220 |
| Great Lakes | | | | | | | | | |
| Wheat | 24 | 0 | n/a | 395 | 709 | 56 | 202 | 98 | 891 |
| Corn | 0 | 0 | n/a | 94 | 61 | 153 | 0 | 0 | 111 |
| Soybeans | 12 | 93 | 13 | 300 | 685 | 44 | 76 | 115 | 1,111 |
| Total | 36 | 93 | 38 | 789 | 1,456 | 54 | 85 | 100 | 2,113 |
| Atlantic | | | | | | | | | |
| Wheat | 0 | 0 | n/a | 125 | 34 | 364 | 0 | 0 | 65 |
| Corn | 0 | 13 | 0 | 81 | 33 | 245 | 334 | 314 | 33 |
| Soybeans | 138 | 73 | 188 | 1,490 | 1,069 | 139 | 103 | 175 | 1,870 |
| Total | 138 | 86 | 159 | 1,695 | 1,137 | 149 | 106 | 179 | 1,968 |
| U.S. total from ports | * | | | | | | | | |
| Wheat | 244 | 138 | 177 | 21,667 | 23,531 | 92 | 56 | 44 | 26,854 |
| Corn | 553 | 659 | 84 | 56,190 | 41,107 | 137 | 97 | 98 | 48,301 |
| Soybeans | 2,731 | 2,683 | 102 | 35,545 | 45,098 | 79 | 99 | 145 | 64,394 |
| Total | 3,528 | 3,480 | 101 | 113,402 | 109,736 | 103 | 94 | 119 | 139,548 |

^{*}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 55 percent of the U.S. export grain shipments departed through the U.S. Gulf region in 2020.

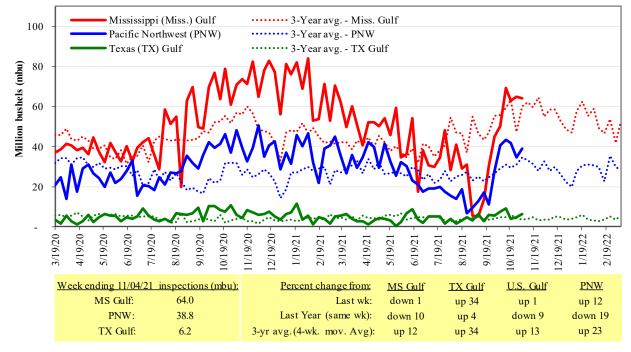
Figure 14
U.S. grain inspected for export (wheat, corn, and soybeans)



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)



Source: USDA, Federal Grain Inspection Service.

Ocean Transportation

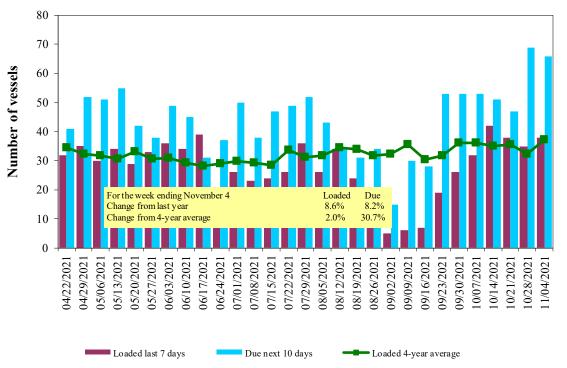
Table 17
Weekly port region grain ocean vessel activity (number of vessels)

| | | | | Pacific |
|--------------|---------|--------|----------|-----------|
| | | Gulf | | Northwest |
| | | Loaded | Due next | |
| Date | In port | 7-days | 10-days | In port |
| 11/4/2021 | 44 | 38 | 66 | 14 |
| 10/28/2021 | 41 | 35 | 69 | 15 |
| 2020 range | (2260) | (2346) | (3468) | (724) |
| 2020 average | 37 | 33 | 49 | 15 |

Note: n/a = not available due to holiday; *Incomplete data due to Hurricane Ida

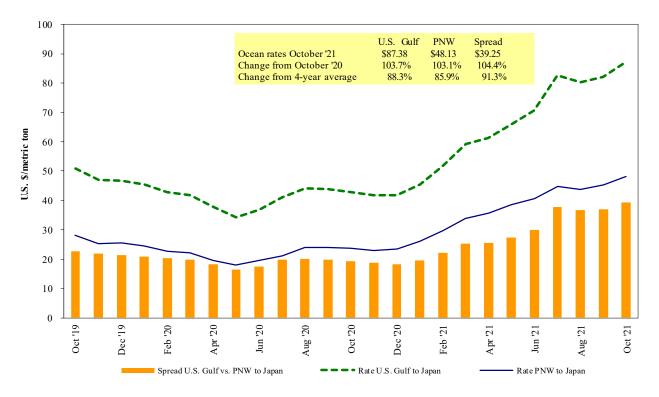
Source: USDA, Agricultural Marketing Service.

Figure 16
U.S. Gulf^l 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 11/06/2021

| Export | Import | Grain | Loading | Volume loads | Freight rate |
|-------------|-------------|-------------|---------------------|---------------|-------------------|
| region | region | types | date | (metric tons) | (US\$/metric ton) |
| U.S. Gulf | Japan | Heavy grain | Oct 1/10, 2021 | 48,000 | 70.10 |
| U.S. Gulf | Japan | Heavy grain | Aug 21/Sep 9, 2021 | 50,000 | 60.90 |
| U.S. Gulf | Japan | Heavy grain | Aug 1/10, 2021 | 50,000 | 69.75 |
| U.S. Gulf | Sudan | Wheat | Sep 1/10, 2021 | 49,000 | 79.12* |
| U.S. Gulf | China | Heavy grain | Nov 1/10, 2021 | 66,000 | 89.00 |
| U.S. Gulf | China | Heavy grain | Oct 1/10, 2021 | 55,000 | 81.50 |
| U.S. Gulf | Djibouti | Wheat | Jul 6/16, 2021 | 5,880 | 85.70* |
| U.S. Gulf | S. Korea | Heavy grain | Dec 1/10, 2021 | 51,000 | 940.00 |
| PNW | Japan | Wheat | Sep 1, 2021 | 52,170 | 56.55* |
| PNW | Japan | Wheat | Jul 25/ Aug 5, 2021 | 32,590 | 64.00 |
| PNW | Taiwan | Wheat | Nov 1/10, 2021 | 49,580 | 67.30 |
| PNW | Taiwan | Heavy grain | Aug 20/30, 2021 | 35,000 | 64.20* |
| PNW | Taiwan | Wheat | Aug 1/10, 2021 | 55,000 | 54.95 |
| Brazil | N. China | Heavy grain | Jan 1/5, 2022 | 64,000 | 58.25 |
| Australia | Japan | Barley | Nov 1/10, 2021 | 55,000 | 65.50 |
| River Plate | South Korea | Corn | Oct 21, 2021 | 67,000 | 79.80 |

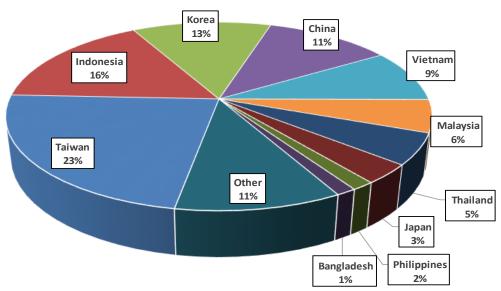
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

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 2020, containers were used to transport 10 percent of total U.S. waterborne grain exports. Approximately 66 percent of U.S. waterborne grain exports in 2020 went to Asia, of which 14 percent were moved in containers. Approximately 95 percent of U.S. waterborne containerized grain exports were destined for Asia.

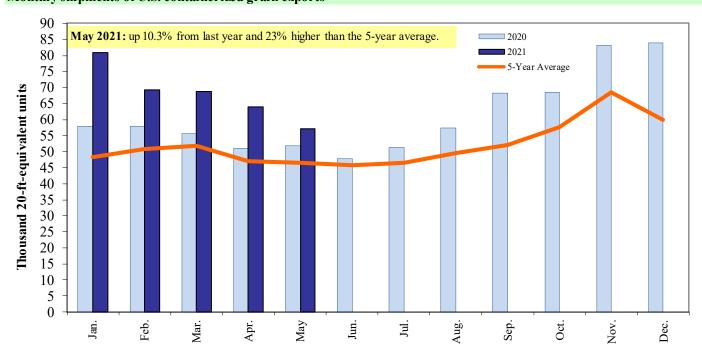
Figure 18
Top 10 destination markets for U.S. containerized grain exports, Jan-May 2021



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, 230290, 230330, 120810, and 120190.

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

Figure 19
Monthly shipments of U.S. containerized grain exports



Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 100190, 100200, 100300, 100400, 100590, 100700, 110100, 110220, 110290, 12010, 120100, 120190, 120810, 230210, 230310, 230330, and 230990.

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

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