



# **Grain Transportation Report**

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

WEEKLY HIGHLIGHTS

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**April 21, 2022** 

## STB Sets Schedule for Next Week's Hearing on Rail Service Issues

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The next release is April 28, 2022

On April 20, the Surface Transportation Board (STB) posted a schedule of appearances for its April 26-27 hearing on "Urgent Issues in Freight Rail Service." A number of metrics from STB continue to show notable signs of deteriorated rail service. Across the seven Class I railroads, compared to the same week last year, grain train speeds are down 6 percent; grain origin dwell times are up 22 percent; the number of grain cars not moved in over 48 hours is up 32 percent; and the number of unfilled shipper orders for empty cars is up 101 percent. With these delays, grain shippers have increasingly turned to the secondary railcar auction markets to get their cars on time. In the week ending April 14, bids for railcar delivery in April reached \$3,750—over \$3,000 above average (*GTR* fig. 4). USDA's Deputy Secretary of Agriculture, agricultural industry representatives, and Six Class I railroads will provide testimony on these issues in the hearing next week. The hearing is open to the public and will be livestreamed on STB's YouTube page.

### Arkansas Program Now Accepting Applications for Waterway Development Grants

The Arkansas Port, Intermodal and Waterway Development Grant Program is now accepting applications for the 2022 grant season. With \$1.95 million in available funding, the grants are open to Arkansas public port or intermodal authorities or facilities on the State's five navigable rivers: the Arkansas, Mississippi, Ouachita, Red, and White Rivers. Administered by the Arkansas Waterways Commission (AWC), the program provides financial assistance to public ports and intermodal authorities for capital improvement and port development projects. These projects have included landside infrastructure, real-estate purchase for port expansion, and much-needed dredging projects for ports and waterways. The program's match requirement is 10 percent for development projects and 50 percent for dredging projects. Applications are available on <a href="https://www.awc.nih.gov/nih.go

### Panama Canal Posts Out-of-Service Notice for April 26 and 28

On April 26, the east lane of the Panama Canal's Gatum Panamax Locks will be out of service for 6 hours for scheduled maintenance work. During the outage, the locks' daily transit capacity is estimated at 29-31 vessels—down from the normal capacity of 34-36 vessels. Also, on April 28, the west lane of the Locks will be out of service for 12 hours for scheduled maintenance work. Daily transit capacity during this time is estimated at 25-27 vessels (down from 34-36 vessels, normally). No major delays are anticipated. The locks' exact transit capacity depends on vessel mix, transit restrictions, and other factors. The Panama Canal is a vital outlet for U.S. grain destined to Asia.

### Snapshots by Sector

#### Export Sales

For the week ending April 7, **unshipped balances** of wheat, corn, and soybeans for marketing year 2021/22 totaled 35.0 million metric tons (mmt), down 9 percent from the same time last year and down 2 percent from the previous week. Net **corn export sales** were 1.333 mmt, up 70 percent from the previous week. Net **soybean export sales** were 0.549 mmt, down 31 percent from the previous week. Net weekly **wheat export sales** were 0.096 mmt, down 38 percent from the previous week.

#### Rai

U.S. Class I railroads originated 24,243 grain carloads during the week ending April 9. This was a 9-percent increase from the previous week, unchanged from last year, and 6 percent more than the 3-year average.

Average April shuttle **secondary railcar** bids/offers (per car) were \$2,900 above tariff for the week ending April 14. This was \$675 more than last week. There were no shuttle bids/offers this week last year.

#### Barge

For the week ending April 16, barged grain movements totaled 870,418 tons. This was 14 percent more than the previous week and 9 percent more than the same period last year.

For the week ending April 16, 551 grain barges **moved down river**—42 more barges than the previous week. There were 747 grain barges **unloaded** in the New Orleans region, 11 percent fewer than last week.

#### Ocean

For the week ending April 14, 32 occangoing grain vessels were loaded in the Gulf—3 percent fewer than the same period last year. Within the next 10 days (starting April 15), 58 vessels were expected to be loaded—18 percent more than the same period last year.

As of April 14, the rate for shipping a metric ton (mt) of grain from the U.S. Gulf to Japan was \$78.50. This was 1 percent more than the previous week. The rate from the Pacific Northwest to Japan was \$44.25 per mt, 1 percent more than the previous week.

#### **Fuel**

For the week ending April 18, the U.S. average **diesel fuel price** increased 2.8 cents from the previous week to \$5.101 per gallon, 197.7 cents above the same week last year.

## Feature Article/Calendar

## First-Quarter 2022 Grain Inspections Down From a Year Ago

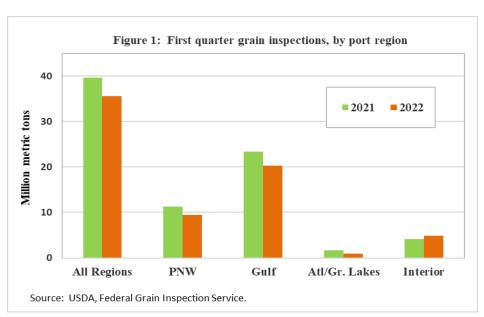
From first quarter 2021 to first quarter 2022 (year to year), inspections of grain from all U.S. ports decreased 10 percent, to 36 million metric tons (mmt), according to USDA's Federal Grain Inspection Service (FGIS) (fig. 1). The year-to-year decrease in total grain inspections reflected lower inspections of all three commodities—corn, soybean, and wheat. Also, total inspections decreased from year to year for all major export regions, except the Interior. First-quarter 2022 inspections marked a 12-percent decrease from the 5-year average. Overall, grain inspections decreased mainly because of falling demand from Asia.

## Breakdowns by Region

**U.S. Gulf.** At 20 mmt, first-quarter 2022 grain inspections at U.S. Gulf ports were up 8 percent from the 5-year average and down 13 percent year to year (fig. 1). Also, year to year, U.S. Gulf wheat inspections were up 23 percent because of less competition from Russian and Canadian wheat. Total U.S. Gulf soybean inspections were down 26 percent, as a result of a drop in shipments to Latin America and Asia. U.S. Gulf corn inspections were down 7 percent.

The drop in grain inspections was also reflected in first-quarter rail deliveries of grain to U.S. Gulf ports, which decreased 28 percent (*GTR* table 3). Barge movements of grain to the U.S. Gulf through the locking sections of the Mississippi, Ohio, and Arkansas Rivers were also down significantly (*GTR* table 10).

Pacific Northwest. At 9 mmt, first-quarter grain inspections in Pacific Northwest (PNW) ports were unchanged from the 5year average and down 16 percent year to year (see fig. 1). PNW corn inspections decreased 24 percent, and wheat inspections decreased 27 percent—both drops reflecting lower demand from Asia and Latin America. PNW first-quarter



soybean inspections, however, were up 6 percent. Overall, lower PNW inspections were reflected in a 13-percent drop in first-quarter rail deliveries of grain to PNW ports (*GTR* table 3).

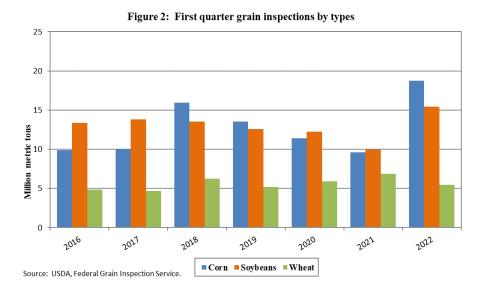
**Atlantic and Great Lakes.** At 0.905 mmt, first-quarter grain inspections for Atlantic and Great Lakes ports were up 45 percent from the 5-year average and up 1 percent year to year. These rises mainly reflected significantly higher corn inspections. Total grain inspections in the Atlantic and Great Lakes increased primarily to Caribbean and Latin American destinations.

<sup>&</sup>lt;sup>1</sup> Unless otherwise noted, all changes throughout this article are from year to year.

**Interior.** At 4.9 mmt, first-quarter grain inspections in the Interior rose 33 percent from the 5-year average and rose 16 percent year to year. At 3.8 mmt, Interior shipments of grain to Mexico were up 19 percent, and at 0.35 mmt, shipments to China were up 144 percent. Inspections of corn rose 15 percent; soybeans rose 11 percent; and wheat rose 34 percent.

### Breakdowns by Commodity

**Corn.** At 17.3 mmt. first-quarter 2022 corn inspections were up 25 percent from the 5-year average and down 7 percent year to year (fig. 2). Over 90 percent of firstquarter 2022 total corn shipments were destined to Asia and Latin America. U.S. Gulf corn inspections decreased 7 percent, and PNW corn inspections fell 24



percent. Decreased U.S. corn exports reflected falling demand for grain from Asian and Latin American countries.

**Soybeans.** At 13.3 mmt, total first-quarter soybean inspections were up 21 percent from the 5-year average and down 14 percent year to year (fig. 2). Soybean inspections fell 26 percent in the U.S. Gulf and rose 6 percent in PNW. At 9.2 mmt, soybeans inspected for export to Asia were down 14 percent.

**Wheat.** At 5 mmt, first-quarter wheat inspections were 16 percent below the 5-year average and down 9 percent year to year. U.S. wheat inspections decreased mainly because of the 97-percent drop in the Atlantic and Great Lakes and the 27-percent drop in PNW. These declines resulted from lower demand from Asia—primarily, China and Malaysia. U.S. Gulf and Interior wheat inspections rose year to year.

### Market Outlook

According to the April release of USDA's *World Agricultural Supply and Demand Estimates* (*WASDE*), the projected corn exports for marketing year (MY) 2021/22 did not change from the March *WASDE* numbers. However, the forecast for wheat exports decreased, and the soybean exports forecast slightly increased. From MY 2020/21, U.S. corn exports are projected to fall 9 percent; wheat exports are projected to decrease 21 percent; and soybean exports are projected to fall 6 percent. Cumulative (shipped) marketing year-to-date export sales of corn and soybeans are 6 percent and 19 percent below the year-to-date sales for MY 2020/21, respectively. Cumulative year-to-date export sales of wheat are 22 percent below MY 2020/21 (*GTR* table 12).

Bernadette.Winston@usda.gov

## **Grain Transportation Indicators**

Table 1 **Grain transport cost indicators** <sup>1</sup>

| Grain transport co  | ost marcutor | J.          |         |       |      |         |
|---------------------|--------------|-------------|---------|-------|------|---------|
| ·                   | Truck        | Rai         | il      | Barge | Oc   | ean     |
| For the week ending |              | Non-Shuttle | Shuttle |       | Gulf | Pacific |
| 04/20/22            | 342          | 306         | 319     | 339   | 351  | 314     |
| 04/13/22            | 340          | 306         | 304     | 447   | 347  | 310     |

<sup>&#</sup>x27;Indicator: Base year 2000 = 100. Weekly updates include truck = diesel (\$/gallon); rail = near-month secondary rail market bid and monthly tariff rate with fuel surcharge (\$/car); barge = Illinois River barge rate (index = percent of tariff rate); ocean = routes to Japan (\$/metric ton); n/a = not available.

Source: USDA, Agricultural Marketing Service.

Table 2

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

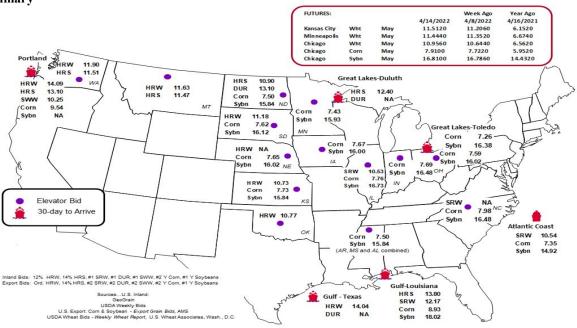
| Commodity | Origin-destination | 4/14/2022 | 4/8/2022 |
|-----------|--------------------|-----------|----------|
| Corn      | IL–Gulf            | -1.17     | -1.22    |
| Corn      | NE-Gulf            | -1.28     | -1.33    |
| Soybean   | IA-Gulf            | -2.02     | -2.21    |
| HRW       | KS–Gulf            | -3.31     | -3.38    |
| HRS       | ND-Portland        | -2.20     | -2.22    |

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

Source: USDA, Agricultural Marketing Service.

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

Figure 1 **Grain bid summary** 



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## **Rail Transportation**

Table 3

Rail deliveries to port (carloads)<sup>1</sup>

|   | Mississippi |            | Pacific   | Atlantic & |         |                    | Cross-border        |
|---|-------------|------------|-----------|------------|---------|--------------------|---------------------|
| For the week ending                           | Gulf        | Texas Gulf | Northwest | East Gulf  | Total   | Week ending        | Mexico <sup>3</sup> |
| 4/13/2022 <sup>p</sup>                        | 2,001       | 1,018      | 6,089     | 572        | 9,680   | 4/9/2022           | 3,375               |
| 4/6/2022 <sup>r</sup>                         | 2,098       | 853        | 5,665     | 517        | 9,133   | 4/2/2022           | 1,969               |
| 2022 YTD <sup>r</sup>                         | 24,521      | 14,971     | 88,000    | 8,633      | 136,125 | 2022 YTD           | 39,769              |
| 2021 YTD <sup>r</sup>                         | 25,493      | 24,506     | 94,658    | 8,683      | 153,340 | 2021 YTD           | 34,523              |
| 2022 YTD as % of 2021 YTD                     | 96          | 61         | 93        | 99         | 89      | % change YTD       | 115                 |
| Last 4 weeks as % of 2021 <sup>2</sup>        | 107         | 67         | 93        | 122        | 92      | Last 4wks. % 2021  | 96                  |
| Last 4 weeks as % of 4-year avg. <sup>2</sup> | 205         | 76         | 97        | 126        | 106     | Last 4wks. % 4 yr. | 114                 |
| Total 2021                                    | 54,982      | 69,213     | 311,407   | 22,567     | 458,169 | Total 2021         | 147,859             |
| Total 2020                                    | 45,294      | 64,116     | 299,882   | 24,458     | 433,750 | Total 2020         | 128,714             |

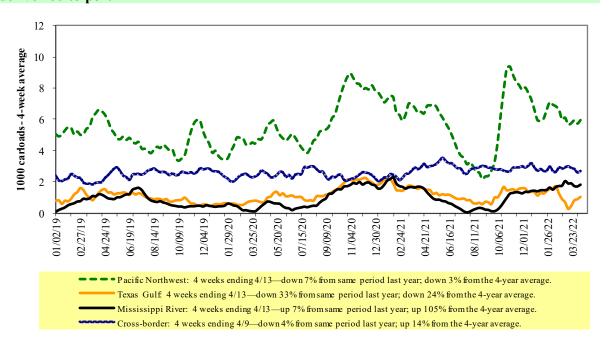
<sup>&</sup>lt;sup>1</sup>Data is incomplete as it is voluntarily provided.

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.

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<sup>&</sup>lt;sup>2</sup> Compared with same 4-weeks in 2021 and prior 4-year average.

<sup>&</sup>lt;sup>3</sup> 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)

| For the week ending:              | East   |         |         | West   |         | U.S. total | Ca      | nada    |
|-----------------------------------|--------|---------|---------|--------|---------|------------|---------|---------|
| 4/9/2022                          | CSXT   | NS      | BNSF    | KCS    | UP      | U.S. total | CN      | CP      |
| This week                         | 2,040  | 2,419   | 12,048  | 1,289  | 6,447   | 24,243     | 3,962   | 4,338   |
| This week last year               | 1,605  | 2,654   | 12,054  | 1,029  | 7,005   | 24,347     | 5,703   | 6,564   |
| 2022 YTD                          | 26,274 | 32,319  | 164,821 | 18,083 | 86,319  | 327,816    | 49,697  | 52,696  |
| 2021 YTD                          | 28,620 | 36,294  | 182,579 | 14,431 | 91,563  | 353,487    | 69,524  | 74,538  |
| 2022 YTD as % of 2021 YTD         | 92     | 89      | 90      | 125    | 94      | 93         | 71      | 71      |
| Last 4 weeks as % of 2021*        | 99     | 98      | 89      | 109    | 85      | 91         | 66      | 62      |
| Last 4 weeks as % of 3-yr. avg.** | 98     | 92      | 102     | 107    | 104     | 101        | 72      | 75      |
| Total 2021                        | 93,935 | 120,909 | 609,890 | 64,818 | 318,002 | 1,207,554  | 210,317 | 242,533 |

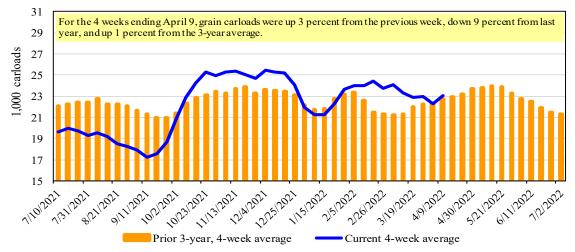
<sup>\*</sup>The past 4 weeks of this year as a percent of the same 4 weeks last year.

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 offerings 1 (\$/car)<sup>2</sup>

| Fo                | or the week ending: |          | <u>Delivery period</u> |          |          |          |          |         |          |  |
|-------------------|---------------------|----------|------------------------|----------|----------|----------|----------|---------|----------|--|
|                   | 4/14/2022           | Apr-22   | Apr-21                 | May-22   | May-21   | Jun-22   | Jun-21   | Jul-22  | Jul-21   |  |
| BNSF <sup>3</sup> | COTgrain units      | no offer | n/a                    | no offer | 0        | no offer | no bids  | no bids | no bids  |  |
|                   | COTgrain single-car | no offer | n/a                    | no offer | 0        | no offer | 0        | 0       | 0        |  |
| UP <sup>4</sup>   | GCAS/Region 1       | no offer | n/a                    | no offer | no offer | no offer | no offer | n/a     | no offer |  |
|                   | GCAS/Region 2       | no offer | n/a                    | no offer | no offer | no offer | no offer | n/a     | no offer |  |

Auction 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.

<sup>\*\*</sup>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.

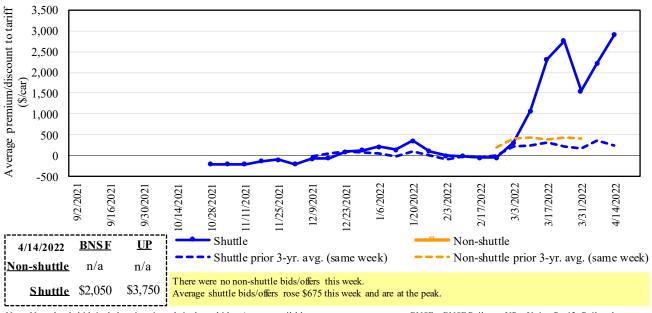
 $<sup>^{2}</sup>$ Average premium/discount to tariff, last auction. n/a = not available.

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

<sup>&</sup>lt;sup>4</sup>UP - GCAS = Union Pacific Railroad Grain Car Allocation System.

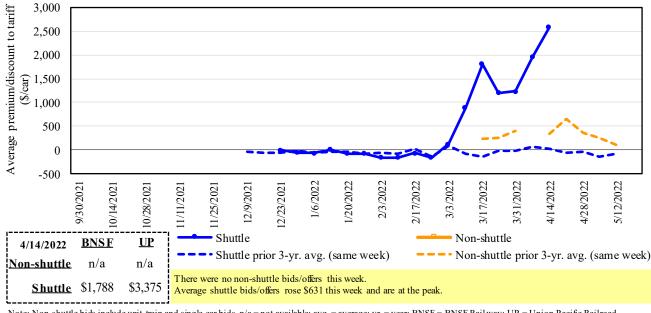
The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/ supply.

Figure 4
Secondary market bids/offers for railcars to be delivered in April 2022



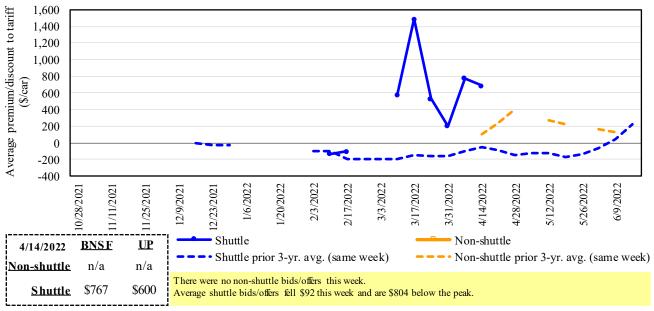
Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year; BNSF = BNSF Railway; UP = Union Pacific Railroad. Source: USDA, Agricultural Marketing Service.

Figure 5
Secondary market bids/offers for railcars to be delivered in May 2022



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
Secondary market bids/offers for railcars to be delivered in June 2022



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)<sup>1</sup>

|         | For the week ending:       |        |        | Del    | ivery period |        |        |
|---------|----------------------------|--------|--------|--------|--------------|--------|--------|
|         | 4/14/2022                  | Apr-22 | May-22 | Jun-22 | Jul-22       | Aug-22 | Sep-22 |
|         | BNSF-GF                    | n/a    | n/a    | n/a    | n/a          | n/a    | n/a    |
| ه ا     | Change from last week      | n/a    | n/a    | n/a    | n/a          | n/a    | n/a    |
| shuttle | Change from same week 2021 | n/a    | n/a    | n/a    | n/a          | n/a    | n/a    |
| Non-sl  | UP-Pool                    | n/a    | n/a    | n/a    | n/a          | n/a    | n/a    |
| ž       | Change from last week      | n/a    | n/a    | n/a    | n/a          | n/a    | n/a    |
|         | Change from same week 2021 | n/a    | n/a    | n/a    | n/a          | n/a    | n/a    |
|         | BNSF-GF                    | 2,050  | 1,788  | 767    | 50           | 0      | 344    |
|         | Change from last week      | 100    | 325    | (8)    | (25)         | (25)   | 0      |
| ttle    | Change from same week 2021 | n/a    | 1,767  | 892    | 250          | 200    | 153    |
| Shuttle | UP-Pool                    | 3,750  | 3,375  | 600    | 700          | 150    | n/a    |
|         | Change from last week      | 1,250  | 937    | n/a    | n/a          | 0      | n/a    |
|         | Change from same week 2021 | n/a    | 3,213  | 600    | 800          | 300    | n/a    |

<sup>&</sup>lt;sup>1</sup>Average premium/discount to tariff, \$/car-last week.

Note: Bids listed are market indicators only and are not guaranteed prices. n/a = not available; GF = guaranteed freight; Pool = guaranteed pool; 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 shipments 1

|                   |                            |                                 |          | Fuel       |                  |                     | Percent          |
|-------------------|----------------------------|---------------------------------|----------|------------|------------------|---------------------|------------------|
|                   |                            |                                 | Tariff   | surcharge_ | Tariff plus surc |                     | change           |
| April 2022        | Origin region <sup>3</sup> | Destination region <sup>3</sup> | rate/car | per car    | metric ton       | bushel <sup>2</sup> | Y/Y <sup>4</sup> |
| <u>Unit train</u> |                            |                                 |          |            |                  |                     |                  |
| Wheat             | Wichita, KS                | St. Louis, MO                   | \$3,695  | \$197      | \$38.65          | \$1.05              | 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                 | \$4,436  | \$347      | \$47.50          | \$1.29              | 3                |
|                   | Sioux Falls, SD            | Galveston-Houston, TX           | \$7,026  | \$0        | \$69.77          | \$1.90              | 3                |
|                   | Colby, KS                  | Galveston-Houston, TX           | \$4,712  | \$380      | \$50.57          | \$1.38              | 3                |
|                   | Amarillo, TX               | Los Angeles, CA                 | \$5,121  | \$529      | \$56.11          | \$1.53              | 6                |
| Corn              | Champaign-Urbana, IL       | New Orleans, LA                 | \$4,000  | \$392      | \$43.62          | \$1.11              | 8                |
|                   | Toledo, OH                 | Raleigh, NC                     | \$8,130  | \$439      | \$85.09          | \$2.16              | 9                |
|                   | Des Moines, IA             | Davenport, IA                   | \$2,505  | \$83       | \$25.70          | \$0.65              | 4                |
|                   | Indianapolis, IN           | Atlanta, GA                     | \$6,227  | \$329      | \$65.11          | \$1.65              | 10               |
|                   | Indianapolis, IN           | Knoxville, TN                   | \$5,247  | \$213      | \$54.22          | \$1.38              | 8                |
|                   | Des Moines, IA             | Little Rock, AR                 | \$4,000  | \$244      | \$42.15          | \$1.07              | 6                |
|                   | Des Moines, IA             | Los Angeles, CA                 | \$5,880  | \$711      | \$65.45          | \$1.66              | 9                |
| Soybeans          | Minneapolis, MN            | New Orleans, LA                 | \$3,631  | \$589      | \$41.90          | \$1.14              | 12               |
|                   | Toledo, OH                 | Huntsville, AL                  | \$6,714  | \$313      | \$69.78          | \$1.90              | 7                |
|                   | Indianapolis, IN           | Raleigh, NC                     | \$7,422  | \$445      | \$78.12          | \$2.13              | 10               |
|                   | Indianapolis, IN           | Huntsville, AL                  | \$5,367  | \$211      | \$55.39          | \$1.51              | 6                |
|                   | Champaign-Urbana, IL       | New Orleans, LA                 | \$4,665  | \$392      | \$50.22          | \$1.37              | 5                |
| 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  | \$414      | \$70.35          | \$1.91              | 11               |
|                   | Grand Forks, ND            | Portland, OR                    | \$5,851  | \$0        | \$58.10          | \$1.58              | 3                |
|                   | Grand Forks, ND            | Galveston-Houston, TX           | \$5,199  | \$0        | \$51.63          | \$1.41              | -13              |
|                   | Colby, KS                  | Portland, OR                    | \$5,923  | \$624      | \$65.01          | \$1.77              | 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  | \$392      | \$42.82          | \$1.09              | 9                |
|                   | Lincoln, NE                | Galveston-Houston, TX           | \$4,080  | \$0        | \$40.52          | \$1.03              | 5                |
|                   | Des Moines, IA             | Amarillo, TX                    | \$4,420  | \$307      | \$46.94          | \$1.19              | 7                |
|                   | 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                 | \$4,895  | \$452      | \$53.10          | \$1.45              | 6                |
|                   | Toledo, OH                 | Huntsville, AL                  | \$4,954  | \$313      | \$52.30          | \$1.42              | 7                |
|                   | Grand Island, NE           | Portland, OR                    | \$5,280  | \$638      | \$58.77          | \$1.60              | 7                |

<sup>&</sup>lt;sup>1</sup>A 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.

<sup>75-120</sup> cars that meet railroad efficiency requirements.

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

<sup>&</sup>lt;sup>3</sup>Regional economic areas are defined by the Bureau of Economic Analysis (BEA).

<sup>&</sup>lt;sup>4</sup>Percentage change year over year (Y/Y) calculated using tariff rate plus fuel surcharge.

Table 8

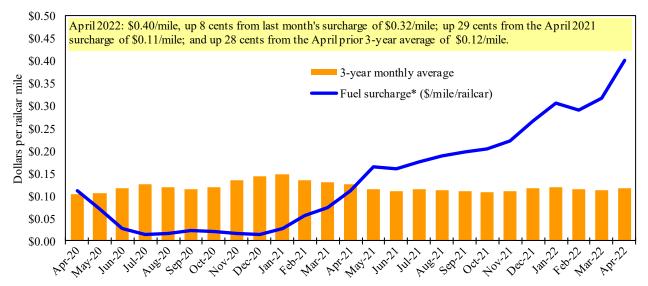
Tariff rail rates for U.S. bulk grain shipments to Mexico

| Date      | : Decembe | r 2021               |                      | Fuel                 | Tarit                   | ff rate plus        | Percent             |
|-----------|-----------|----------------------|----------------------|----------------------|-------------------------|---------------------|---------------------|
|           | Origin    |                      | Tariff rate          | surcharge_           |                         | harge per:          | change <sup>4</sup> |
| Commodity | state     | Destination region   | per car <sup>1</sup> | per car <sup>2</sup> | metric ton <sup>3</sup> | bushel <sup>3</sup> | Y/Y                 |
| Wheat     | MT        | Chihuahua, CI        | \$7,699              | \$0                  | \$78.67                 | \$2.14              | 4                   |
|           | OK        | Cuautitlan, EM       | \$6,900              | \$230                | \$72.85                 | \$1.98              | 6                   |
|           | KS        | Guadalajara, JA      | \$7,619              | \$719                | \$85.19                 | \$2.32              | 7                   |
|           | TX        | Salinas Victoria, NL | \$4,420              | \$138                | \$46.57                 | \$1.27              | 4                   |
| Corn      | IA        | Guadalajara, JA      | \$9,102              | \$663                | \$99.77                 | \$2.53              | 6                   |
|           | SD        | Celaya, GJ           | \$8,300              | \$0                  | \$84.81                 | \$2.15              | 2                   |
|           | NE        | Queretaro, QA        | \$8,322              | \$462                | \$89.75                 | \$2.28              | 5                   |
|           | SD        | Salinas Victoria, NL | \$6,905              | \$0                  | \$70.55                 | \$1.79              | 0                   |
|           | MO        | Tlalnepantla, EM     | \$7,687              | \$450                | \$83.14                 | \$2.11              | 5                   |
|           | SD        | Torreon, CU          | \$7,825              | \$0                  | \$79.95                 | \$2.03              | 2                   |
| Soybeans  | МО        | Bojay (Tula), HG     | \$8,647              | \$614                | \$94.63                 | \$2.57              | 5                   |
|           | NE        | Guadalajara, JA      | \$9,207              | \$646                | \$100.67                | \$2.74              | 5                   |
|           | IA        | El Castillo, JA      | \$9,510              | \$0                  | \$97.17                 | \$2.64              | 1                   |
|           | KS        | Torreon, CU          | \$8,109              | \$466                | \$87.61                 | \$2.38              | 5                   |
| Sorghum   | NE        | Celaya, GJ           | \$7,932              | \$597                | \$87.15                 | \$2.21              | 6                   |
|           | KS        | Queretaro, QA        | \$8,108              | \$287                | \$85.77                 | \$2.18              | 3                   |
|           | NE        | Salinas Victoria, NL | \$6,713              | \$231                | \$70.94                 | \$1.80              | 3                   |
|           | NE        | Torreon, CU          | \$7,225              | \$438                | \$78.29                 | \$1.99              | 6                   |

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

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

Figure 7
Railroad fuel surcharges, North American weighted average 1



<sup>&</sup>lt;sup>1</sup> 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.

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

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

 $<sup>^{4}</sup>$ Percentage change calculated using tariff rate plus fuel surchage; Y/Y = year over year.

<sup>&</sup>lt;sup>5</sup> As of January 1, both BNSF and Union Pacific changed their billing and reporting of rates to Mexico. As we incorporate the change, Table 8 updates will be delayed.

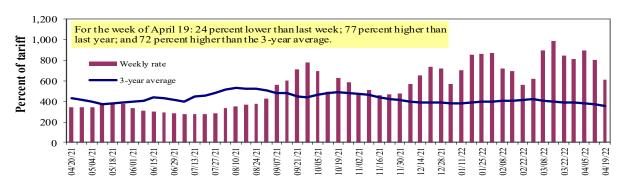
<sup>\*</sup> Beginning January 2009, the Canadian Pacific fuel surcharge is computed by a monthly average of the bi-weekly fuel surcharge.

<sup>\*\*</sup>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



<sup>&</sup>lt;sup>1</sup>Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); <sup>2</sup>4-week moving average of the 3-year average.

Table 9
Weekly barge freight rates: Southbound only

| · · · · ·         | iy burge neigh           |                | outingound on       | -3                         |                |                |                |                   |
|-------------------|--------------------------|----------------|---------------------|----------------------------|----------------|----------------|----------------|-------------------|
|                   |                          | Twin<br>Cities | Mid-<br>Mississippi | Lower<br>Illinois<br>River | St. Louis      | Cincinnati     | Lower<br>Ohio  | Cairo-<br>Memphis |
| Rate <sup>1</sup> | 4/19/2022<br>4/12/2022   | 731<br>790     | 663<br>780          | 611<br>805                 | 503<br>655     | 625<br>785     | 625<br>785     | 481<br>566        |
| \$/ton            | 4/19/2022<br>4/12/2022   | 45.25<br>48.90 | 35.27<br>41.50      | 28.35<br>37.35             | 20.07<br>26.13 | 29.31<br>36.82 | 25.25<br>31.71 | 15.10<br>17.77    |
| Curren            | t week % change          | e from the sa  | nme week:           |                            |                |                |                |                   |
|                   | Last year                | 69             | 89                  | 77                         | 112            | 127            | 127            | 119               |
|                   | 3-year avg. <sup>2</sup> | 77             | 93                  | 72                         | 100            | 119            | 118            | 101               |
| Rate <sup>1</sup> | May                      | 650            | 594                 | 563                        | 463            | 575            | 575            | 419               |
|                   | July                     | 633            | 550                 | 509                        | 425            | 488            | 488            | 363               |

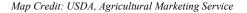
<sup>&</sup>lt;sup>1</sup>Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); <sup>2</sup>4-week moving average; ton = 2,000 pounds; "-" data not available. Source: USDA, Agricultural Marketing Service.

### Figure 9 Benchmark tariff rates

### Calculating barge rate per ton:

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

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

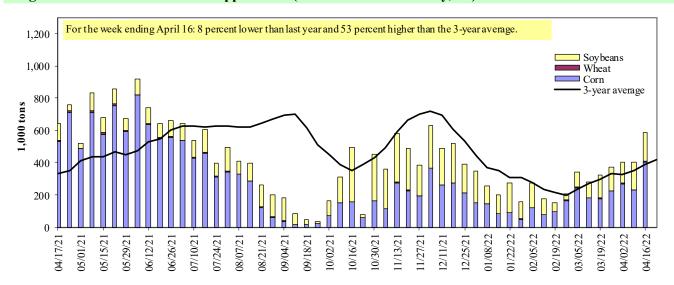




<sup>\*</sup>Source: USDA, Agricultural Marketing Service.

Figure 10

Barge movements on the Mississippi River<sup>1</sup> (Locks 27 - Granite City, IL)



<sup>&</sup>lt;sup>1</sup> 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 04/16/2022         | Corn   | Wheat | Soybeans | Other | Total  |
|--|--------|-------|----------|-------|--------|
| Mississippi River                      |        |       |          |       |        |
| Rock Island, IL (L15)                  | 98     | 0     | 35       | 0     | 132    |
| Winfield, MO (L25)                     | 221    | 0     | 98       | 0     | 319    |
| Alton, IL (L26)                        | 396    | 0     | 158      | 0     | 554    |
| Granite City, IL (L27)                 | 400    | 8     | 180      | 0     | 588    |
| Illinois River (La Grange)             | 162    | 0     | 74       | 0     | 236    |
| Ohio River (Olmsted)                   | 139    | 24    | 62       | 8     | 234    |
| Arkansas River (L1)                    | 0      | 33    | 15       | 0     | 48     |
| Weekly total - 2022                    | 539    | 65    | 258      | 8     | 870    |
| Weekly total - 2021                    | 638    | 24    | 135      | 2     | 798    |
| 2022 YTD <sup>1</sup>                  | 5,260  | 480   | 3,549    | 91    | 9,380  |
| 2021 YTD <sup>1</sup>                  | 8,208  | 292   | 3,199    | 116   | 11,815 |
| 2022 as % of 2021 YTD                  | 64     | 165   | 111      | 78    | 79     |
| Last 4 weeks as % of 2021 <sup>2</sup> | 68     | 158   | 209      | 193   | 93     |
| Total 2021                             | 23,516 | 1,634 | 11,325   | 297   | 36,772 |

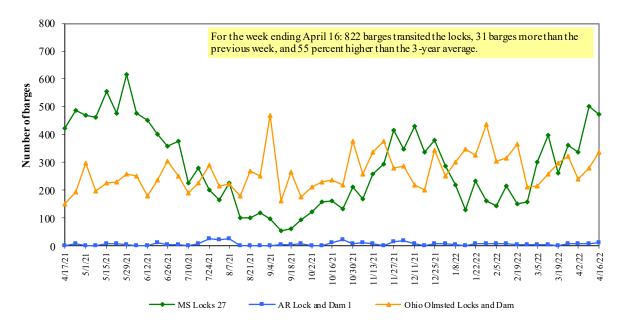
Weekly total, YTD (year-to-date), and calendar year total include MI/27, OH/Olmsted, and AR/1; Other refers to oats, barley, sorghum, and rye. Total may not add exactly due to rounding.

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

Source: U.S. Army Corps of Engineers.

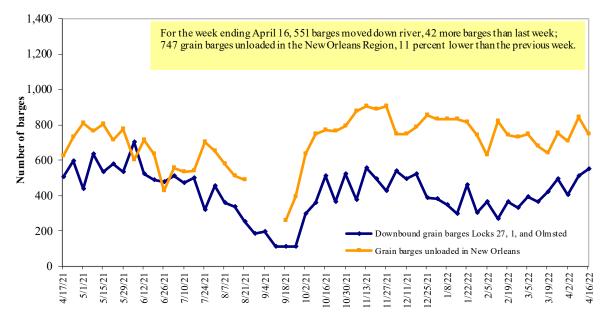
<sup>&</sup>lt;sup>2</sup> As a percent of same period in 2020.

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.

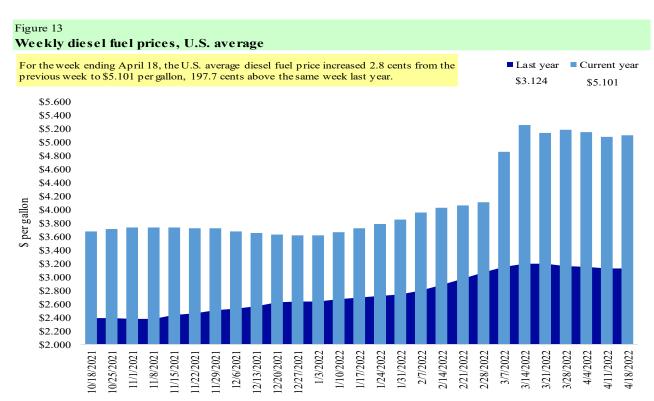
Table 11

Retail on-highway diesel prices, week ending 4/18/2022 (U.S. \$/gallon)

|        |                            |       | Chang    | e from   |
|--------|----------------------------|-------|----------|----------|
| Region | Location                   | Price | Week ago | Year ago |
| I      | East Coast                 | 5.151 | 0.023    | 2.055    |
|        | New England                | 5.177 | -0.004   | 2.106    |
|        | Central Atlantic           | 5.335 | 0.044    | 2.076    |
|        | Lower Atlantic             | 5.033 | 0.015    | 2.040    |
| II     | Midwest                    | 4.921 | 0.034    | 1.867    |
| III    | Gulf Coast                 | 4.855 | 0.015    | 1.932    |
| IV     | Rocky Mountain             | 5.094 | 0.052    | 1.862    |
| V      | West Coast                 | 5.795 | 0.034    | 2.150    |
|        | West Coast less California | 5.278 | 0.015    | 2.030    |
|        | California                 | 6.250 | 0.027    | 2.273    |
| Total  | United States              | 5.101 | 0.028    | 1.977    |

<sup>&</sup>lt;sup>1</sup>Diesel fuel prices include all taxes. Prices represent an average of all types of diesel fuel.

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



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)

| e ist export buildines and cumulation          |       |       |       |       |     |           |        |          |         |
|--|-------|-------|-------|-------|-----|-----------|--------|----------|---------|
|  |       |       | Who   | eat   |     |           | Corn   | Soybeans | Total   |
| For the week ending                            | HRW   | SRW   | HRS   | SWW   | DUR | All wheat |        |          |         |
| Export balances <sup>1</sup>                   |       |       |       |       |     |           |        |          |         |
| 4/7/2022                                       | 1,334 | 487   | 817   | 439   | 16  | 3,092     | 20,396 | 11,507   | 34,996  |
| This week year ago                             | 1,146 | 259   | 1,251 | 1,607 | 78  | 4,342     | 29,024 | 5,265    | 38,630  |
| Cumulative exports-marketing year <sup>2</sup> |       |       |       |       |     |           |        |          |         |
| 2021/22 YTD                                    | 6,214 | 2,348 | 4,504 | 2,906 | 174 | 16,146    | 35,374 | 45,128   | 96,648  |
| 2020/21 YTD                                    | 7,400 | 1,513 | 6,270 | 5,010 | 595 | 20,788    | 37,787 | 55,498   | 114,073 |
| YTD 2021/22 as % of 2020/21                    | 84    | 155   | 72    | 58    | 29  | 78        | 94     | 81       | 85      |
| Last 4 wks. as % of same period 2020/21*       | 126   | 196   | 77    | 30    | 22  | 79        | 73     | 220      | 94      |
| 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 |

<sup>&</sup>lt;sup>1</sup> Current uns hipped (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**<sup>1</sup> **of U.S. corn** 

| For the week ending 04/07/2022      |            | Total commitments <sup>2</sup> | % change     | Exports <sup>3</sup> |
|-------------------------------------|------------|--------------------------------|--------------|----------------------|
|                                     | 2021/22    | 2020/21                        | current MY   | 3-yr. avg.           |
|                                     | current MY | last MY                        | from last MY | 2019-21              |
|                                     | 1,000 mt - |                                |              |                      |
| Mexico                              | 15,415     | 12,915                         | 19           | 14,817               |
| Japan                               | 8,599      | 9,369                          | (8)          | 11,082               |
| China                               | 12,778     | 23,260                         | (45)         | 7,920                |
| Columbia                            | 3,879      | 3,353                          | 16           | 4,491                |
| Korea                               | 877        | 2,779                          | (68)         | 3,302                |
| Top 5 importers                     | 41,548     | 51,677                         | (20)         | 41,613               |
| Total U.S. corn export sales        | 55,769     | 66,811                         | (17)         | 53,145               |
| % of projected exports              | 88%        | 95%                            |              |                      |
| Change from prior week <sup>2</sup> | 1,333      | 328                            |              |                      |
| Top 5 importers' share of U.S. corn |            |                                |              |                      |
| export sales                        | 74%        | 77%                            |              | 78%                  |
| USDA forecast April 2022            | 63,613     | 70,051                         | (9)          |                      |
| Corn use for ethanol USDA forecast, |            |                                |              |                      |
| April 2022                          | 136,525    | 127,838                        | 7            |                      |

 $<sup>^1</sup>$ 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.

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

 $<sup>^2</sup>$ Cumulative exports (shipped) + outstanding sales (unshipped), FAS weekly export sales report, or export sales query. Total commitments change (net sales) from prior week could include revisions from previous week's outstanding sales or accumulated sales.

<sup>&</sup>lt;sup>3</sup>FAS marketing year ranking reports (carryover plus accumulated export); yr. = year; avg. = average.

Table 14

Top 5 importers 1 of U.S. soybeans

| For the week ending 4/07/2022       | Total commitments <sup>2</sup> |         | % change     | Exports <sup>3</sup> |
|-------------------------------------|--------------------------------|---------|--------------|----------------------|
|                                     | 2021/22                        | 2020/21 | current MY   | 3-yr. avg.           |
|                                     | current MY                     | last MY | from last MY | 2018-20              |
|                                     |                                |         |              | - 1,000 mt -         |
| China                               | 29,183                         | 35,700  | (18)         | 21,666               |
| Mexico                              | 4,933                          | 4,574   | 8            | 4,754                |
| Egypt                               | 3,585                          | 2,619   | 37           | 3,093                |
| Indonesia                           | 1,285                          | 1,905   | (33)         | 2,325                |
| Japan                               | 1,947                          | 1,911   | 2            | 2,275                |
| Top 5 importers                     | 40,934                         | 46,709  | (12)         | 34,113               |
| Total U.S. soybean export sales     | 56,636                         | 60,763  | (7)          | 50,758               |
| % of projected exports              | 98%                            | 99%     |              |                      |
| change from prior week <sup>2</sup> | 549                            | 90      |              |                      |
| Top 5 importers' share of U.S.      |                                |         |              |                      |
| soybean export sales                | 72%                            | 77%     |              | 67%                  |
| USDA forecast, April 2022           | 57,629                         | 61,608  | (6)          |                      |

<sup>&</sup>lt;sup>1</sup>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 importers of all U.S. wheat

| For the week ending 4/07/2022       | Total Commi | tments <sup>2</sup> | % change     | Exports <sup>3</sup> |
|-------------------------------------|-------------|---------------------|--------------|----------------------|
|                                     | 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                              | 3,544       | 3,417               | 4            | 3,388                |
| Philippines                         | 2,718       | 3,193               | (15)         | 3,121                |
| Japan                               | 2,359       | 2,458               | (4)          | 2,567                |
| Korea                               | 1,255       | 1,842               | (32)         | 1,501                |
| Nigeria                             | 1,987       | 1,390               | 43           | 1,490                |
| China                               | 848         | 3,203               | (74)         | 1,268                |
| Taiwan                              | 916         | 1,139               | (20)         | 1,187                |
| Indonesia                           | 122         | 879                 | (86)         | 1,131                |
| Thailand                            | 557         | 809                 | (31)         | 768                  |
| Italy                               | 249         | 588                 | (58)         | 681                  |
| Top 10 importers                    | 14,555      | 18,919              | (23)         | 17,102               |
| Total U.S. wheat export sales       | 19,238      | 25,129              | (23)         | 24,617               |
| % of projected exports              | 90%         | 93%                 |              |                      |
| change from prior week <sup>2</sup> | 96          | (57)                |              |                      |
| Top 10 importers' share of U.S.     |             |                     |              |                      |
| wheat export sales                  | 76%         | 75%                 |              | 69%                  |
| USDA forecast, April 2022           | 21,390      | 27,030              | (21)         |                      |

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.

 $Source: USDA, Foreign\ Agricultural\ Service.$ 

<sup>&</sup>lt;sup>2</sup>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 previous week's outstanding sales and/or accumulated sales.

<sup>&</sup>lt;sup>3</sup>FAS marketing year ranking reports (carryover plus accumulated export); yr. = year; avg. = average.

<sup>&</sup>lt;sup>2</sup>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.

 $<sup>^3</sup>$  FAS marketing year final reports (carryo ver plus accumulated export); yr. = year; avg. = average.

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

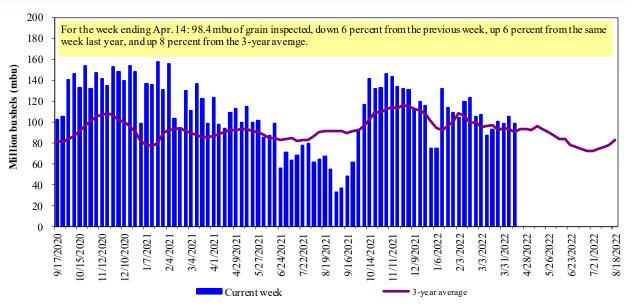
|                        | For the week ending | Previous | Current week     |           |           | 2022 YTD as   | Last 4-we | eks as % of:     |             |
|------------------------|---------------------|----------|------------------|-----------|-----------|---------------|-----------|------------------|-------------|
| Port regions           | 04/14/22            | week*    | as % of previous | 2022 YTD* | 2021 YTD* | % of 2021 YTD | Last year | Prior 3-yr. avg. | 2021 total* |
| Pacific Northwest      |                     |          |                  |           |           |               |           |                  |             |
| Wheat                  | 184                 | 247      | 75               | 3,091     | 4,878     | 63            | 55        | 63               | 13,243      |
| Corn                   | 321                 | 200      | 161              | 3,782     | 5,710     | 66            | 63        | 91               | 13,420      |
| Soybeans               | 143                 | 67       | 212              | 4,038     | 3,717     | 109           | n/a       | 125              | 14,540      |
| Total                  | 648                 | 514      | 126              | 10,911    | 14,306    | 76            | 77        | 85               | 41,203      |
| Mississippi Gulf       |                     |          |                  | ,         | ,         |               |           |                  | ,           |
| Wheat                  | 120                 | 95       | 125              | 1,206     | 609       | 198           | 194       | 144              | 3,202       |
| Corn                   | 604                 | 1,016    | 59               | 12,897    | 15,181    | 85            | 84        | 114              | 38,498      |
| Soybeans               | 666                 | 573      | 116              | 8,319     | 9,153     | 91            | 281       | 179              | 27,159      |
| Total                  | 1,390               | 1,685    | 82               | 22,423    | 24,943    | 90            | 114       | 131              | 68,858      |
| Texas Gulf             |                     |          |                  |           |           |               |           |                  |             |
| Wheat                  | 110                 | 42       | 260              | 911       | 1,089     | 84            | 65        | 61               | 3,888       |
| Corn                   | 33                  | 39       | 85               | 214       | 174       | 123           | 255       | 164              | 627         |
| Soybeans               | 0                   | 0        | n/a              | 2         | 656       | 0             | 0         | 0                | 1,611       |
| Total                  | 144                 | 82       | 175              | 1,127     | 1,920     | 59            | 72        | 70               | 6,126       |
| Interior               |                     |          |                  |           |           |               |           |                  |             |
| Wheat                  | 39                  | 56       | 69               | 877       | 797       | 110           | 95        | 116              | 2,973       |
| Corn                   | 158                 | 185      | 85               | 2,649     | 2,733     | 97            | 87        | 101              | 10,157      |
| Soybeans               | 117                 | 146      | 80               | 2,193     | 2,185     | 100           | 100       | 111              | 6,525       |
| Total                  | 314                 | 387      | 81               | 5,718     | 5,715     | 100           | 93        | 106              | 19,656      |
| Great Lakes            |                     |          |                  |           |           |               |           |                  |             |
| Wheat                  | 2                   | 1        | n/a              | 28        | 21        | 137           | 347       | 28               | 536         |
| Corn                   | 0                   | 7        | 0                | 7         | 25        | 29            | 29        | 86               | 145         |
| Soybeans               | 31                  | 0        | n/a              | 50        | 0         | n/a           | n/a       | 572              | 592         |
| Total                  | 34                  | 8        | 426              | 85        | 45        | 189           | 240       | 173              | 1,273       |
| Atlantic               |                     |          |                  |           |           |               |           |                  |             |
| Wheat                  | 0                   | 0        | n/a              | 4         | 71        | 6             | n/a       | 0                | 128         |
| Corn                   | 3                   | 0        | n/a              | 62        | 7         | 879           | 284       | 424              | 85          |
| Soybeans               | 66                  | 75       | 88               | 973       | 958       | 102           | 134       | 217              | 2,184       |
| Total                  | 70                  | 75       | 92               | 1,040     | 1,037     | 100           | 140       | 206              | 2,397       |
| U.S. total from ports* |                     |          |                  |           |           |               |           |                  |             |
| Wheat                  | 455                 | 441      | 103              | 6,118     | 7,465     | 82            | 74        | 77               | 23,969      |
| Com                    | 1,119               | 1,448    | 77               | 19,612    | 23,830    | 82            | 80        | 107              | 62,932      |
| Soybeans               | 1,024               | 862      | 119              | 15,575    | 16,670    | 93            | 223       | 154              | 52,612      |
| Total                  | 2,598               | 2,751    | 94               | 41,305    | 47,966    | 86            | 98        | 111              | 139,512     |

<sup>\*</sup>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 2019.

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

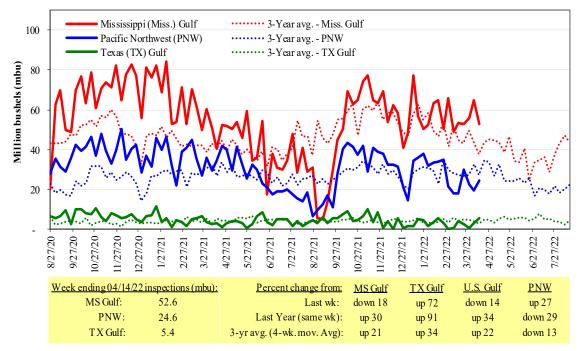


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

U.S. Grain inspections: U.S. Gulf and PNW<sup>1</sup> (wheat, corn, and soybeans)



Source: USDA, Federal Grain Inspection Service.

## **Ocean Transportation**

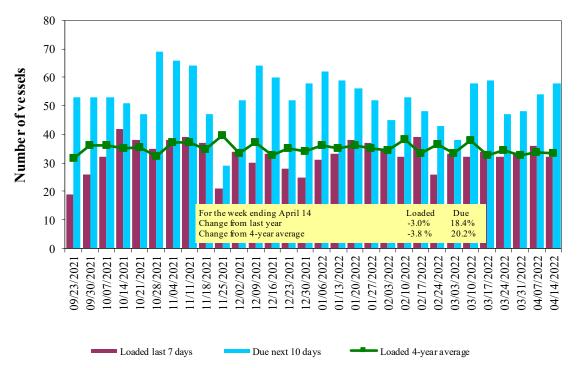
Table 17

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   |
| 4/14/2022    | 34      | 32     | 58       | 12        |
| 4/7/2022     | 25      | 36     | 54       | 7         |
| 2021 range   | (1057)  | (548)  | (1569)   | (427)     |
| 2021 average | 34      | 32     | 49       | 15        |

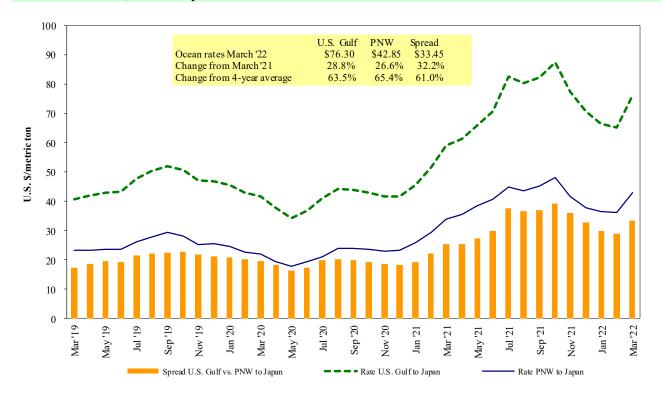
Source: USDA, Agricultural Marketing Service.

Figure 16
U.S. Gulf<sup>1</sup> vessel loading activity



<sup>1</sup>U.S. Gulf includes Mississippi, Texas, and East Gulf Source: USDA, Agricultural Marketing Service.

Figure 17 **Grain vessel rates, U.S. to Japan** 



Note: PNW = Pacific Northwest Source: O'Neil Commodity Consulting

Table 18

Ocean freight rates for selected shipments, week ending 04/16/2022

| Export    | Import   | Grain        | Loading            | Volume loads  | Freight rate       |
|-----------|----------|--------------|--------------------|---------------|--------------------|
| region    | region   | types        | date               | (metric tons) | (US \$/metric ton) |
| U.S. Gulf | Japan    | Heavy grain  | Jun 1/10           | 50,000        | 89.65              |
| U.S. Gulf | Japan    | Heavy grain  | May 1/20, 2022     | 50,000        | 78.90              |
| U.S. Gulf | China    | Heavy grain  | Dec 1/10, 2021     | 65,000        | 76.00              |
| U.S. Gulf | China    | Heavy grain  | Nov 1/10, 2021     | 66,000        | 89.00              |
| U.S. Gulf | Djibouti | Sorghum      | Mar 1/10, 2022     | 10,000        | 209.97*            |
| U.S. Gulf | Honduras | Soybean Meal | Feb 18/28, 2022    | 7,820         | 57.15*             |
| U.S. Gulf | S. Korea | Heavy grain  | Jun 1/Jul, 2022    | 55,000        | 82.75              |
| U.S. Gulf | Sudan    | Sorghum      | Mar 1/10, 2022     | 35,790        | 149.97*            |
| U.S. Gulf | Sudan    | Sorghum      | Feb 1/10, 2022     | 35,780        | 77.60*             |
| PNW       | Japan    | Wheat        | Sep 1, 2021        | 52,170        | 56.55*             |
| PNW       | Yemen    | Wheat        | Jan 24/Feb 4, 2022 | 29,960        | 124.00*            |
| Brazil    | N. China | Heavy grain  | Mar 18/27, 2022    | 64,000        | 56.85              |
| Brazil    | N. China | Heavy grain  | Jan 1/5, 2022      | 64,000        | 58.25              |
| Argentina | Taiwan   | Corn         | May 1/Jun, 2022    | 65,000        | 85.00              |
| Australia | Japan    | Barley       | Nov 1/10, 2021     | 55,000        | 65.50              |

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

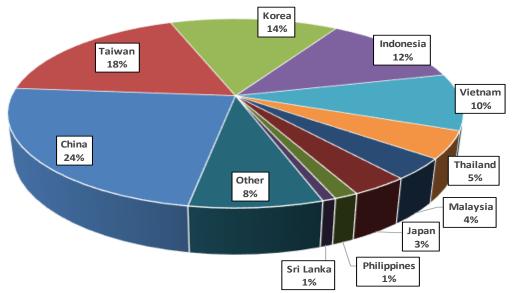
Note: Rates shown are per metric ton (2,204.62 lbs. = 1 metric ton), free on board (F.O.B), except where otherwise indicated; op = option.

Source: Maritime Research, Inc.

In 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

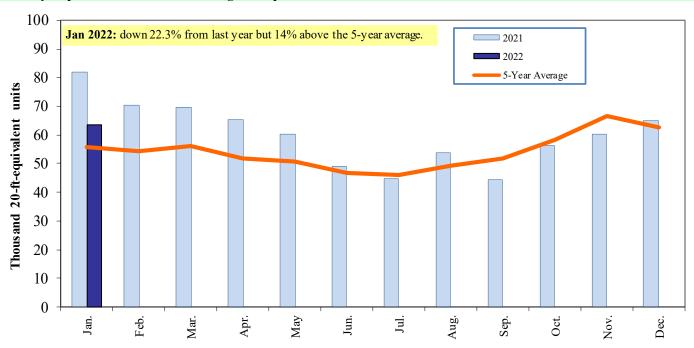
Top 10 destination markets for U.S. containerized grain exports, Jan 2022



Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 1001, 100190, 1002, 1003 100300, 1004, 100400, 1005, 100590, 1007, 100700, 1102, 110100, 230310, 110220, 110290, 1201, 120100, 230210, 230990, 230330, 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, 1201, 120100, 120190, 120810, 230210, 230310, 230330, and 230990.

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

## Contacts and Links

| Coordinators                         |  |                                      |
|--------------------------------------|--|--------------------------------------|
| Surajudeen (Deen) Olowolayemo        | surajudeen.olowolayemo@usda.gov                        | (202) 720 - 0119                     |
| Maria Williams<br>Bernadette Winston | maria.williams@usda.gov<br>bernadette.winston@usda.gov | (202) 690 - 4430<br>(202) 690 - 0487 |
| Matt Chang                           | matt.chang@usda.gov                                    | (202) 720 - 0299                     |
| Watt Chang                           | matt.changlousua.gov                                   | (202) 720 - 0277                     |
| Grain Transportation Indicators      |  |                                      |
| Surajudeen (Deen) Olowolayemo        | surajudeen.olowolayemo@usda.gov                        | (202) 720 - 0119                     |
| Rail Transportation                  |  |                                      |
| Jesse Gastelle                       | jesse.gastelle@usda.gov                                | (202) 690 - 1144                     |
| Peter Caffarelli                     | petera.caffarelli@usda.gov                             | (202) 690 - 3244                     |
| Bernadette Winston                   | bernadette.winston@usda.gov                            | (202) 690 - 0487                     |
| Barge Transportation                 |  |                                      |
| April Taylor                         | april.taylor@usda.gov                                  | (202) 720 - 7880                     |
| Matt Chang                           | matt.chang@usda.gov                                    | (202) 720 - 0299                     |
| <u> </u>                             |  | ,                                    |
| Truck Transportation                 |  | (202) 720 7000                       |
| April Taylor<br>Kranti Mulik         | <u>april.taylor@usda.gov</u><br>kranti.mulik@usda.gov  | (202) 720 - 7880                     |
| Matt Chang                           | matt.chang@usda.gov                                    | (202) 756 - 2577<br>(202) 720 - 0299 |
| Matt Chang                           | matt.chang@usda.gov                                    | (202) 720 - 0299                     |
| Grain Exports                        |  |                                      |
| Kranti Mulik                         | kranti.mulik@usda.gov                                  | (202) 756 - 2577                     |
| Bernadette Winston                   | bernadette.winston@usda.gov                            | (202) 690 - 0487                     |
| Ocean Transportation                 |  |                                      |
| Surajudeen (Deen) Olowolayemo        | surajudeen.olowolayemo@usda.gov                        | (202) 720 - 0119                     |
| (Freight rates and vessels)          |  | , ,                                  |
| April Taylor                         | april.taylor@usda.gov                                  | (202) 720 - 7880                     |
| (Container movements)                |  |                                      |
| Editor                               |  |                                      |
| Maria Williams                       | maria.williams@usda.gov                                | (202) 690-4430                       |
|                                      |  |                                      |

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