



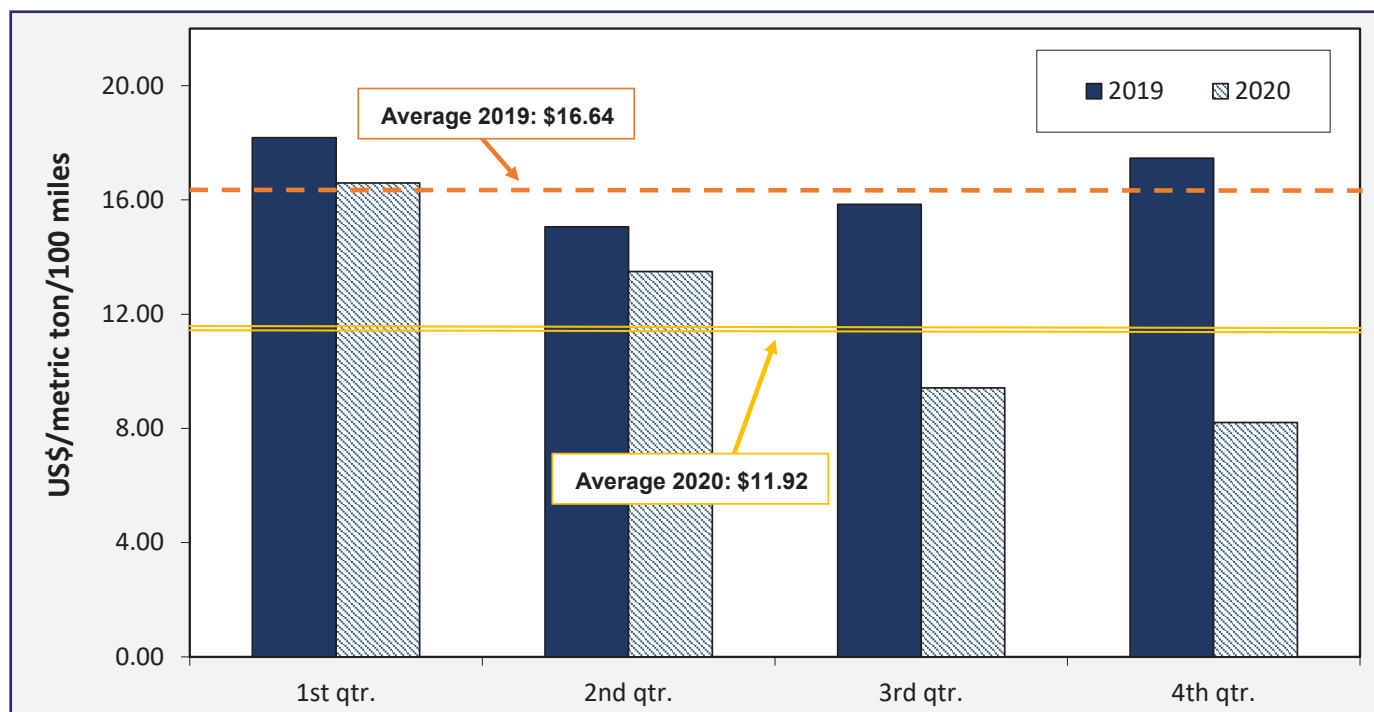
# Ukraine Grain Transportation

Published April 2021

**Low crop supplies and flagging exports reduced demand for Ukrainian grain-export transportation.**<sup>1</sup> In 2020, Ukraine exported 18.1 million metric tons (mmt) of wheat, nearly 10 percent less than 2019’s total of 20 mmt. Corn exports also declined by 14 percent, from 32.3 mmt in 2019 to 27.9 mmt in 2020 ([State statistics service of Ukraine](#)). The cost of shipping a metric ton (mt) of grain 100 miles by truck decreased from \$16.64 per mt in 2019 to \$11.92 per mt in 2020 (table 6) ([Zernovoz](#)). This 28-percent drop was mostly due to a decrease in fuel prices and excess supply of trucks. The excess truck supply was due to Ukrainian drivers returning from the European Union (EU) because of COVID-19 lockdowns ([Centre for Transport Strategies \(CFTS\)](#)).

Rail rates also declined in response to the increased truck competition. Private grain hoppers’ rents fell from \$62 per day (without value-added tax (VAT)) in November 2019 to \$8 per day (no VAT) in May 2020 ([Promgruz](#)). [Ukrzaliznytsia \(UZ\)](#) also lowered grain hoppers rent rates, but did so later than private companies.<sup>2</sup>

**Figure 1. Ukrainian grain\* export truck cost index, 2019-2020**



\*Grain refers to wheat, corn, and soybeans.

Note: Truck data collected from Zernovoz and JIT+, Kiev, Ukraine.

Source: Centre for Transport Strategies (CFTS) Kyiv, Ukraine, and USDA, Agricultural Marketing Service.

1 Andrii Shkliar at [andrii.shkliar@cfts.org.ua](mailto:andrii.shkliar@cfts.org.ua), Andrey Isayev at [andrey.isayev@cfts.org.ua](mailto:andrey.isayev@cfts.org.ua), and Pavlo Rudenko at [pavlo.rudenko@cfts.org.ua](mailto:pavlo.rudenko@cfts.org.ua), gathered all of the Ukraine data in this report and ensured its accuracy.

2 The Ukrainian rail freight market is under Government control. The Government-held company, Ukrzaliznytsia (UZ), owns the rail infrastructure and provides services. Tariff rates are not published. UZ uses the former Soviet Union’s railway-tariff-setting model.



# Ukraine Grain Transportation

In August 2020, UZ lowered the rent for grain hoppers from \$41 per day (without VAT) to \$23 per day (without VAT) in October 2020 ([CFTS](#)). From 2019 to 2020, truck's market share rose from 26 percent to nearly 28 percent, mostly at the expense of barge shipments (which fell 2 percent) and a slight drop in rail shipments ([Ukrzaliznitsya](#), [Ukrainian Sea Ports Authorities](#), and [CFTS](#)). In 2020, lower transportation costs and higher farm prices led to lower landed costs for Ukrainian wheat and corn to Alexandria, Egypt, Ciwandan/Cigading, Indonesia, and Shanghai, China.<sup>3</sup> As a share of total landed costs, the transportation costs decreased 30-33 percent for the route from Central Ukraine through the ports of Odesa and decreased 31-35 percent from Mykolaiv through the same ports (tables 1 and 2).

From Odesa and Mykolaiv to Alexandria, Egypt; Ciwandan/Cigading, Indonesia; and the Southern ports, China—ocean freight rates declined partly as a result of the pandemic's widening global impacts. Among these impacts were restrictions in South Asia discouraging shipyards from scrapping. The reduced demolition of older ships increased the vessel supply and further softened rates ([Grain Transportation Report, January 21, 2021](#)).

Higher Chinese wheat and corn demand, and smaller crops raised grain prices ([FAS, Grain: World Markets and Trade](#)). According to the [Food and Agricultural Organization of United Nations \(FAO\)](#), from 2019 to 2020, average Black Sea wheat export prices increased nearly 7 percent for mill and 10 percent for feed—to \$225.98 per mt for mill and to \$218.50 per mt for feed. Also, from 2019 to 2020, Black Sea corn export prices increased 8 percent from \$173.05 per mt to \$188.58 per mt. In 2020, Ukrainian average wheat farm prices increased 33 percent from \$184.26 per mt to \$245.85 per mt (table 1). Corn average farm prices increased nearly 42 percent from \$150.68 per mt to \$213.22 per mt (table 2).

In 2020, Ukraine exported about 8 mmt of corn to China, 81 percent more than 2019's total (4 mmt), accounting for 27 percent of Ukraine's total exports (28 mmt). The next highest shares of Ukraine's corn exports (in declining order) went to the Netherlands, Egypt, Spain, and Turkey. Ukraine exported 3 mmt of wheat to Egypt, accounting for 17 percent of Ukraine's total exports (18.1 mmt). The next highest shares of Ukraine's wheat exports (in declining order) went to Indonesia, Bangladesh, Pakistan, and Turkey.

Of the Ukrainian grain shipped to major export facilities in 2020, the largest share (64 percent) went by rail, followed by the truck share (28 percent) and barge share (8 percent) ([Ukrzaliznitsya](#), [Ukrainian Sea Ports Authorities](#), and [CFTS](#)). In contrast, in the United States in 2016, barges shipped 54 percent of total soybean exports to major export facilities; rail shipped 30 percent; and trucks shipped 16 percent ([USDA/AMS](#)). In 2020, more than 95 percent of Ukrainian grain exports were via the Black Sea ports ([Ukrainian Sea Ports Authorities](#) and [CFTS](#)).<sup>4</sup>

## Ukraine Land Reform (Update)

According to the [World Bank Group](#), Ukraine land reform—lifting the moratorium on agricultural land sales—is the most powerful measure the Government can take to boost economic growth and job creation, particularly in rural areas. More than 70 percent—some 106 million acres (43 million hectares (ha))—of Ukrainian territory is classified as agricultural land. Ukrainian land is exceptionally fertile and accounts for one-third of the world's black soil.<sup>5</sup> On April 28, 2020, the Ukrainian president Volodymyr Zelensky signed the bill on the agricultural land market into law [2178-10](#). The new law will allow full ownership of land shares and opens up opportunities for the use of land as collateral for loans ([CFTS](#)).

3 Landed costs = total transportation costs + farm price.

4 The Ukrainian Black Sea region includes the ports of Odesa, Chornomorsk, Yuzhnyi, Bilhorod-Dnistrovskiy, Izmail, Reni, Ust-Dunaisk, Skadovsk, Olviia, Mykolaiv, and Kherson. The region excludes the ports in occupied Crimea (Yevpatoriia, Kerch, Sevastopol, Feodosiia, and Yalta).

5 The chernozem black soil of central Ukraine is highly fertile and rich in organic matter content called humus.



# Ukraine Grain Transportation

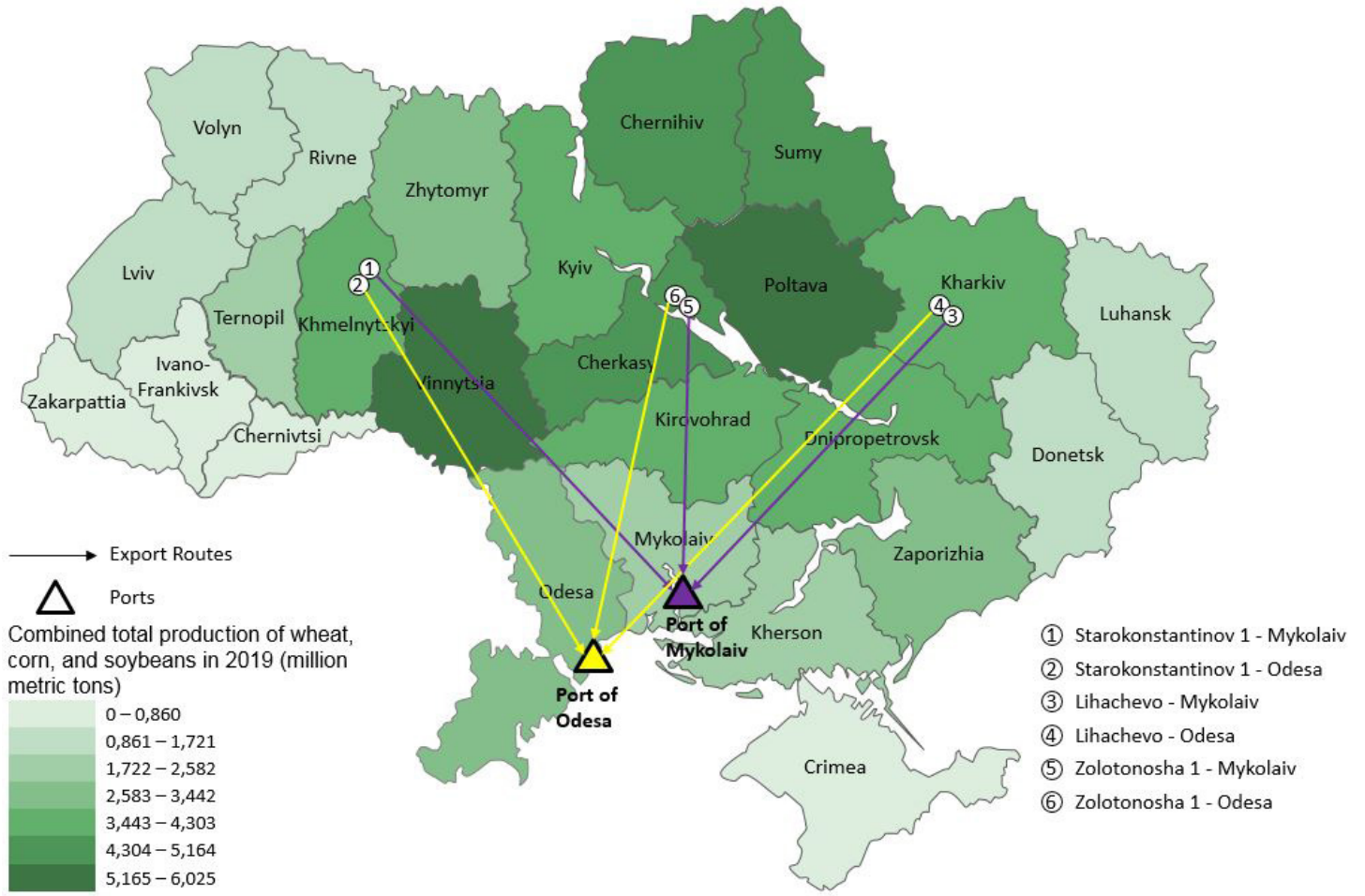
- From July 1, 2021, to January 1, 2024, Ukrainian citizens can acquire agricultural land. However, the total accumulated area of land that one person can own is limited to 247 acres (100 ha).
- Payment transactions for acquiring agricultural land can be performed only in cashless form, and purchasers must prove the source of their money or other assets transferred as a condition of purchase.
- Currently, it appears that foreign individuals and foreign legal entities (including Ukrainian legal entities with some foreign shareholders) will be prohibited from acquiring agricultural land. A Ukraine-wide referendum (date not yet determined) could somewhat change this prohibition. However, regardless of the referendum results, the prohibition will continue to extend to legal entities with foreign shareholders or beneficiaries from countries that are recognized aggressors or an occupant of Ukrainian territories.
- In addition, regardless of any referendum results, the prohibited parties will not be permitted to acquire state or municipal agricultural land, agricultural land from holders of land shares, or land within 31.1 miles (50 kilometers) of the country's border.
- Beginning January 1, 2024, qualifying Ukrainian legal entities will be able to acquire agricultural land. Banks that took possession of agricultural land by foreclosing on land mortgages will not qualify.
- Beginning January 1, 2024, the maximum area of agricultural land in ownership for an individual or a legal entity cannot exceed 24,711 acres (10,000 ha).

For more information, contact Delmy L. Salin at [delmy.salin@usda.gov](mailto:delmy.salin@usda.gov).



# Ukraine Grain Transportation

**Figure 2. Routes<sup>1</sup> and wheat, corn, and soybean regions considered in the Ukrainian grain export transportation indicator<sup>2</sup>**



<sup>1</sup>Table defining routes by number is shown on page 12.

<sup>2</sup>Regions comprised roughly 100 percent of wheat, corn, and soybean production, 2019.

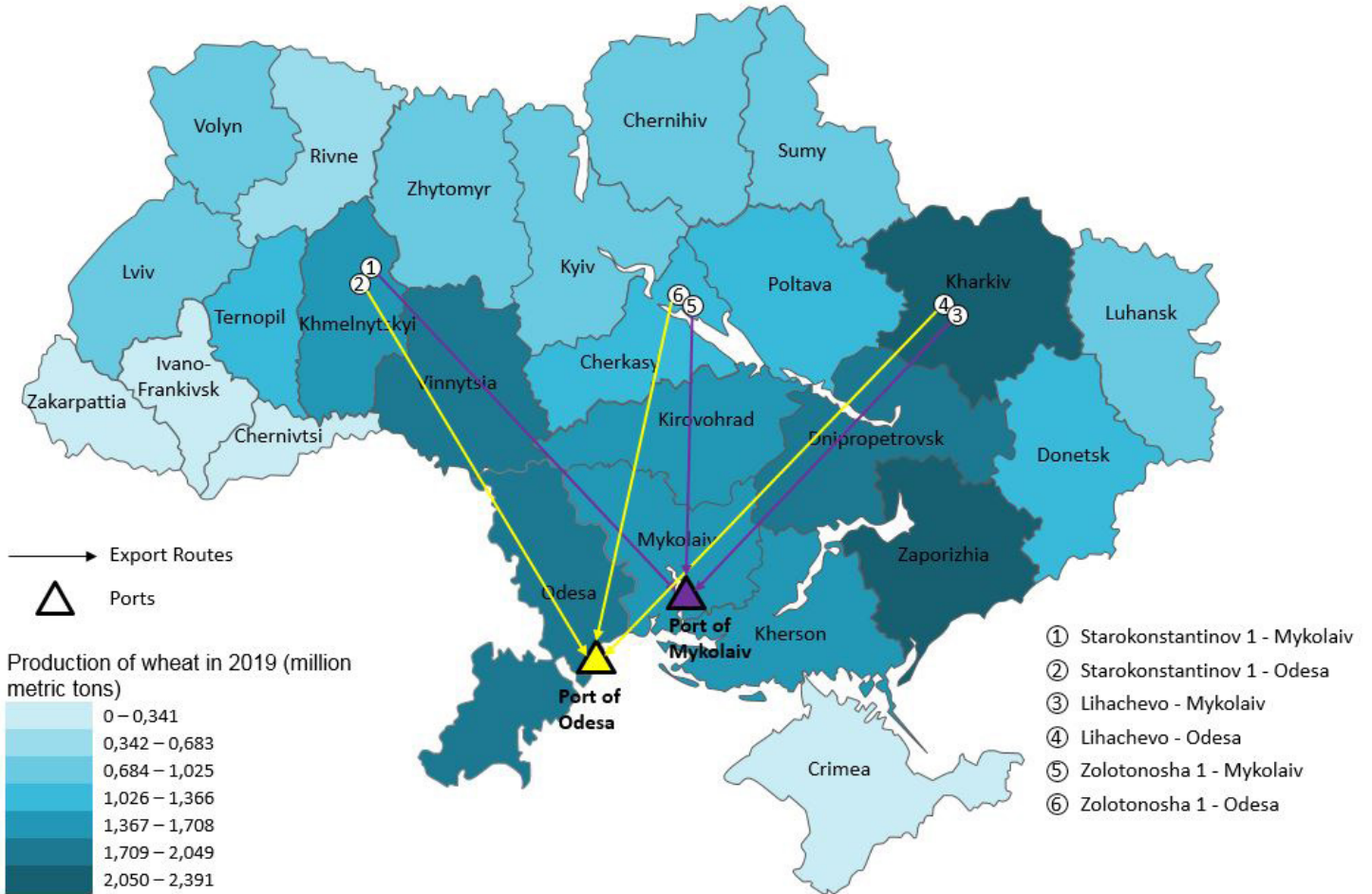
Source: Centre for Transport Strategies (CFTS) Kyiv, Ukraine, and USDA, Agricultural Marketing Service.





# Ukraine Grain Transportation

Figure 3. Routes<sup>1</sup> and wheat regions considered in the Ukrainian grain export transportation indicator<sup>2</sup>



<sup>1</sup>Table defining routes by number is shown on page 12.

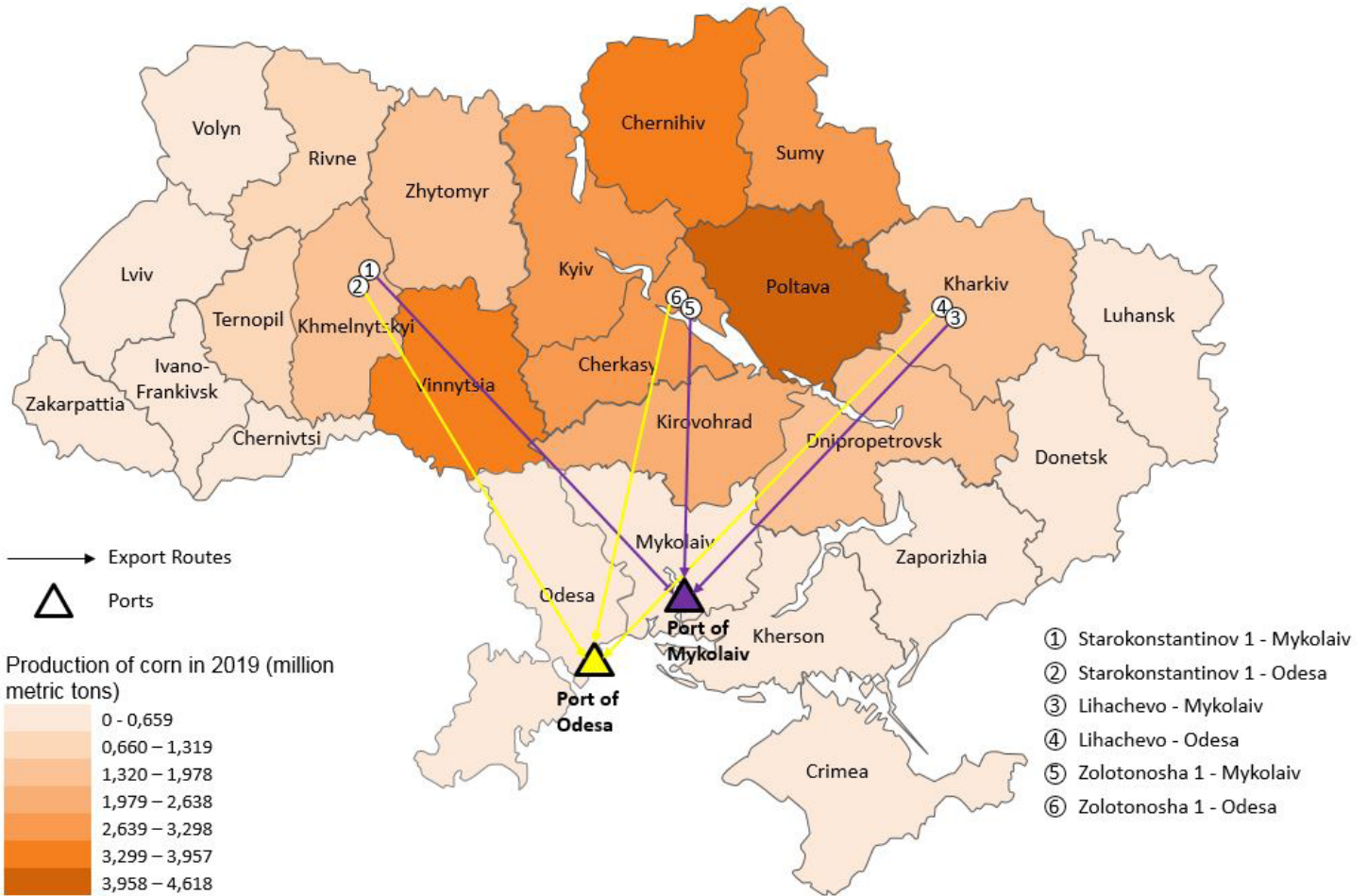
<sup>2</sup>Regions comprised roughly 100 percent of wheat production, 2019.

Source: Centre for Transport Strategies (CFTS) Kyiv, Ukraine, and USDA, Agricultural Marketing Service.



# Ukraine Grain Transportation

Figure 4. Routes<sup>1</sup> and corn regions considered in the Ukrainian grain export transportation indicator<sup>2</sup>



<sup>1</sup>Table defining routes by number is shown on page 12.

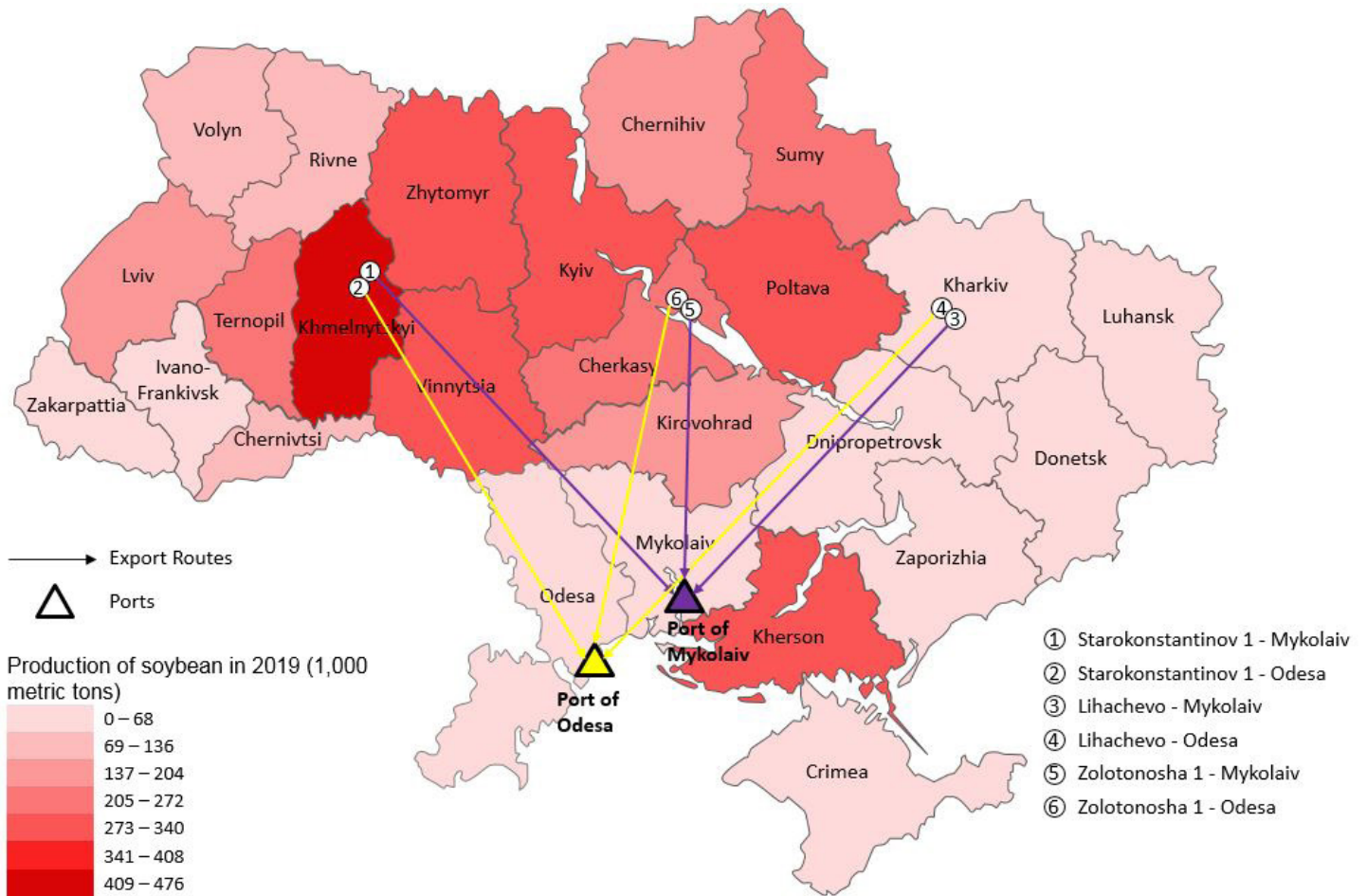
<sup>2</sup>Regions comprised roughly 100 percent of corn production, 2019.

Source: Centre for Transport Strategies (CFTS) Kyiv, Ukraine, and USDA, Agricultural Marketing Service.



# Ukraine Grain Transportation

Figure 5. Routes<sup>1</sup> and soybean regions considered in the Ukrainian grain export transportation indicator<sup>2</sup>



<sup>1</sup>Table defining routes by number is shown on page 12.

<sup>2</sup>Regions comprised roughly 100 percent of soybean production, 2019.

Source: Centre for Transport Strategies (CFTS) Kyiv, Ukraine, and USDA, Agricultural Marketing Service.



# Ukraine Grain Transportation

**Table 1. Average semiannual costs of transporting Ukrainian wheat from the Black Sea ports to Egypt and Indonesia, July-December of both 2019 and 2020**

	2nd half 2019	2nd half 2020	% change 2019-2020	2nd half 2019	2nd half 2020	% change 2019-2020
<b>To Alexandria, Egypt</b>						
	<b>Central Ukraine<sup>1</sup> - Odesa<sup>2</sup> —US\$/mt—</b>			<b>Central Ukraine<sup>1</sup> - Mykolaiv<sup>2</sup> —US\$/mt—</b>		
Truck	8.11	5.28	-34.9	8.11	5.28	-34.9
Rail <sup>3</sup>	14.51	11.72	-19.3	10.89	8.81	-19.1
Ocean	14.33	13.75	-4.1	16.08	15.58	-3.1
Total transportation	36.96	30.75	-16.8	35.08	29.67	-15.4
Farm price <sup>4</sup>	184.26	245.85	33.4	184.26	245.85	33.4
Landed cost	221.22	276.60	25.0	219.34	275.52	25.6
Transport % of landed cost	16.70	11.2	-32.8	15.99	10.9	-32.0
<b>To Ciwandan/Cigading, Indonesia</b>						
	<b>Central Ukraine<sup>1</sup> - Odesa<sup>2</sup> —US\$/mt—</b>			<b>Central Ukraine<sup>1</sup> - Mykolaiv<sup>2</sup> —US\$/mt—</b>		
Truck	8.11	5.28	-34.9	8.11	5.28	-34.9
Rail <sup>3</sup>	14.51	11.72	-19.3	10.89	8.81	-19.1
Ocean	36.00	32.33	-10.2	37.75	34.17	-9.5
Total transportation	58.62	49.33	-15.8	56.75	48.26	-15.0
Farm price <sup>4</sup>	184.26	245.85	33.4	184.26	245.85	33.4
Landed cost	242.88	295.19	21.5	241.01	294.11	22.0
Transport % of landed cost	24.1	16.9	-30.1	23.55	16.6	-29.7

<sup>1</sup>Central Ukraine producing region = Cherkasy, Chernihiv, Kherson, Kirovohrad, Kyiv, Mykolaiv, Odesa, Poltava, and Sumy provinces.

<sup>2</sup>Export ports.

<sup>3</sup>Rail rates include the cost of delivery to the railway station and the cost of renting a grain hopper. However, rail rates do not include the cost of moving and positioning rail cars at the elevator and port, railway station fees, security service from loading to discharging port, or freight-forwarding service. (Any or all of these items could exceed the rail tariff rate.) Rail rates are estimated by using specialized software “TM-Karta” in accordance with Ukrzaliznytsia (UZ) tariff regulation.

<sup>4</sup>Farm price = elevator price – handling costs – farm-to-elevator transportation.

Note: 2nd half = July-December. mt = metric ton.

Source: Centre for Transport Strategies (CFTS) Kyiv, Ukraine, and USDA, Agricultural Marketing Service.





# Ukraine Grain Transportation

**Table 2. Average semiannual costs of transporting Ukrainian corn from the Black Sea ports to Egypt and China, July-December of both 2019 and 2020**

	2nd half 2019	2nd half 2020	% change 2019-2020	2nd half 2019	2nd half 2020	% change 2019-2020
<b>To Alexandria, Egypt</b>						
	<b>Central Ukraine<sup>1</sup> - Odesa<sup>2</sup> —US\$/mt—</b>			<b>Central Ukraine<sup>1</sup> - Mykolaiv<sup>2</sup> —US\$/mt—</b>		
Truck	8.11	5.28	-34.9	8.11	5.28	-34.9
Rail <sup>3</sup>	14.51	11.72	-19.3	10.89	8.81	-19.1
Ocean	14.33	13.75	-4.1	16.08	15.58	-3.1
Total transportation	36.96	30.75	-16.8	35.08	29.67	-15.4
Farm price <sup>4</sup>	150.68	213.22	41.5	150.68	213.22	41.5
Landed cost	187.64	243.97	30.0	185.77	242.89	30.8
Transport % of landed cost	19.72	12.8	-35.1	18.91	12.4	-34.4
<b>To Shanghai, China</b>						
	<b>Central Ukraine<sup>1</sup> - Odesa<sup>2</sup> —US\$/mt—</b>			<b>Central Ukraine<sup>1</sup> - Mykolaiv<sup>2</sup> —US\$/mt—</b>		
Truck	8.11	5.28	-34.9	8.11	5.28	-34.9
Rail <sup>3</sup>	14.51	11.72	-19.3	10.89	8.81	-19.1
Ocean	34.42	31.50	-8.5	37.17	34.25	-7.8
Total transportation	57.04	48.50	-15.0	56.17	48.34	-13.9
Farm price <sup>4</sup>	150.68	213.22	41.5	150.68	213.22	41.5
Landed cost	207.72	261.72	26.0	206.85	261.56	26.5
Transport % of landed cost	27.48	18.8	-31.6	27.17	18.7	-31.0

<sup>1</sup>Central Ukraine producing region = Cherkasy, Chernihiv, Kherson, Kirovohrad, Kyiv, Mykolaiv, Odesa, Poltava, and Sumy provinces.

<sup>2</sup>Export ports.

<sup>3</sup>Rail rates include the cost of delivery to the railway station and the cost of renting a grain hopper. However, rail rates do not include the cost of moving and positioning rail cars at the elevator and port, railway station fees, security service from loading to discharging port, or freight-forwarding service. (Any or all of these items could exceed the rail tariff rate.) Rail rates are estimated by using specialized software “TM-Karta” in accordance with Ukrzaliznytsia (UZ) tariff regulation.

<sup>4</sup>Farm price = elevator price – handling costs – farm-to-elevator transportation.

Note: 2nd half = July-December. mt = metric ton.

Source: Centre for Transport Strategies (CFTS) Kyiv, Ukraine, and USDA, Agricultural Marketing Service.



# Ukraine Grain Transportation

**Table 3. Quarterly costs of transporting Ukrainian wheat from the Black Sea ports to Egypt and Indonesia, 2020**

	1st qtr 2020	2nd qtr. 2020	3rd qtr. 2020	4th qtr. 2020	Average 2020	1st qtr 2020	2nd qtr. 2020	3rd qtr. 2020	4th qtr. 2020	Average 2020
<b>To Alexandria, Egypt</b>										
	<b>Central Ukraine<sup>1</sup> - Odesa<sup>2</sup> —US\$/mt—</b>					<b>Central Ukraine<sup>1</sup> - Mykolaiv<sup>2</sup> —US\$/mt—</b>				
Truck	8.23	6.69	5.35	5.21	6.37	8.23	6.69	5.35	5.21	6.37
Rail <sup>3</sup>	14.39	13.47	12.66	10.78	12.82	10.80	10.10	9.50	8.11	9.63
Ocean	11.33	8.83	13.08	14.42	11.92	13.08	10.58	15.00	16.17	13.71
Total transportation	33.96	28.99	31.09	30.41	31.11	32.11	27.38	29.86	29.49	29.71
Farm price <sup>4</sup>	212.06	206.65	220.07	271.64	227.60	212.06	206.65	220.07	271.64	227.60
Landed cost	246.01	235.65	251.16	302.04	258.72	244.17	234.03	249.92	301.12	257.31
Transport % of landed cost	13.8	12.3	12.4	10.1	12.1	13.2	11.7	11.9	9.8	11.6
<b>To Ciwandan/Cigading, Indonesia</b>										
	<b>Central Ukraine<sup>1</sup> - Odesa<sup>2</sup> —US\$/mt—</b>					<b>Central Ukraine<sup>1</sup> - Mykolaiv<sup>2</sup> —US\$/mt—</b>				
Truck	8.23	6.69	5.35	5.21	6.37	8.23	6.69	5.35	5.21	6.37
Rail <sup>3</sup>	14.39	13.47	12.66	10.78	12.82	10.80	10.10	9.50	8.11	9.63
Ocean	30.67	23.50	32.83	31.83	29.71	32.42	25.25	34.75	33.58	31.50
Total transportation	53.29	43.66	50.84	47.83	48.90	51.45	42.05	49.61	46.90	47.50
Farm price <sup>4</sup>	212.06	206.65	220.07	271.64	227.60	212.06	206.65	220.07	271.64	227.60
Landed cost	265.34	250.32	270.91	319.46	276.51	263.50	248.70	269.67	318.54	275.10
Transport % of landed cost	20.1	17.4	18.8	15.0	17.8	19.5	16.9	18.4	14.7	17.4

<sup>1</sup>Central Ukraine producing region = Cherkasy, Chernihiv, Kherson, Kirovohrad, Kyiv, Mykolaiv, Odesa, Poltava, and Sumy provinces.

<sup>2</sup>Export ports.

<sup>3</sup>Rail rates include the cost of delivery to the railway station and the cost of renting a grain hopper. However, rail rates do not include the cost of moving and positioning rail cars at the elevator and port, railway station fees, security service from loading to discharging port, or freight-forwarding service. (Any or all of these items could exceed the rail tariff rate.) Rail rates are estimated by using specialized software “TM-Karta” in accordance with Ukrzaliznytsia (UZ) tariff regulation.

<sup>4</sup>Farm price = elevator price – handling costs – farm-to-elevator transportation.

Note: qtr = quarter. mt = metric ton.

Source: Centre for Transport Strategies (CFTS) Kyiv, Ukraine, and USDA, Agricultural Marketing Service.



# Ukraine Grain Transportation

**Table 4. Quarterly costs of transporting Ukrainian corn from the Black Sea ports to Egypt and China, 2020**

	1st qtr 2020	2nd qtr. 2020	3rd qtr. 2020	4th qtr. 2020	Average 2020	1st qtr 2020	2nd qtr. 2020	3rd qtr. 2020	4th qtr. 2020	Average 2020
<b>To Alexandria, Egypt</b>										
	<b>Central Ukraine<sup>1</sup> - Odesa<sup>2</sup> —US\$/mt—</b>					<b>Central Ukraine<sup>1</sup> - Mykolaiv<sup>2</sup> —US\$/mt—</b>				
Truck	8.23	6.69	5.35	5.21	6.37	8.23	6.69	5.35	5.21	6.37
Rail <sup>3</sup>	14.39	13.47	12.66	10.78	12.82	10.80	10.10	9.50	8.11	9.63
Ocean	11.33	8.83	13.08	14.42	11.92	13.08	10.58	15.00	16.17	13.71
Total transportation	33.96	28.99	31.09	30.41	31.11	32.11	27.38	29.86	29.49	29.71
Farm price <sup>4</sup>	175.45	172.97	183.58	242.86	193.72	175.45	172.97	183.58	242.86	193.72
Landed cost	209.41	201.96	214.67	273.27	224.83	207.57	200.35	213.44	272.35	223.43
Transport % of landed cost	16.2	14.4	14.5	11.1	14.0	15.5	13.7	14.0	10.8	13.5
<b>To Shanghai, China</b>										
	<b>Central Ukraine<sup>1</sup> - Odesa<sup>2</sup> —US\$/mt—</b>					<b>Central Ukraine<sup>1</sup> - Mykolaiv<sup>2</sup> —US\$/mt—</b>				
Truck	8.23	6.69	5.35	5.21	6.37	8.23	6.69	5.35	5.21	6.37
Rail <sup>3</sup>	14.39	13.47	12.66	10.78	12.82	10.80	10.10	9.50	8.11	9.63
Ocean	29.17	24.83	31.50	31.50	29.25	31.92	27.58	34.25	34.25	32.00
Total transportation	51.79	44.99	49.51	47.49	48.45	50.95	44.38	49.11	47.57	48.00
Farm price <sup>4</sup>	175.45	172.97	183.58	242.86	193.72	175.45	172.97	183.58	242.86	193.72
Landed cost	227.24	217.96	233.09	290.36	242.16	226.40	217.35	232.69	290.43	241.72
Transport % of landed cost	22.8	20.6	21.2	16.4	20.3	22.5	20.4	21.1	16.4	20.1

<sup>1</sup>Central Ukraine producing region = Cherkasy, Chernihiv, Kherson, Kirovohrad, Kyiv, Mykolaiv, Odesa, Poltava, and Sumy provinces.

<sup>2</sup>Export ports.

<sup>3</sup>Rail rates include the cost of delivery to the railway station and the cost of renting a grain hopper. However, rail rates do not include the cost of moving and positioning rail cars at the elevator and port, railway station fees, security service from loading to discharging port, or freight-forwarding service. (Any or all of these items could exceed the rail tariff rate.) Rail rates are estimated by using specialized software “TM-Karta” in accordance with Ukrzaliznytsia (UZ) tariff regulation.

<sup>4</sup>Farm price = elevator price – handling costs – farm-to-elevator transportation.

Note: qtr = quarter. mt = metric ton.

Source: Centre for Transport Strategies (CFTS) Kyiv, Ukraine, and USDA, Agricultural Marketing Service.



# Ukraine Grain Transportation

**Table 5. Quarterly rail rates for selected Ukrainian grain and soybean export transportation routes, 2020**

Route #	Origin (reference city) <sup>1</sup>	Destination	Distance (miles)	Share (%) <sup>2</sup>	Freight price (US\$/mt/100 miles) <sup>3</sup>				
					1st qtr	2nd qtr	3rd qtr	4th qtr	Avg
1	Western Ukraine (Khmelnitskii, station Starokonstantinov <sup>1</sup> )	Mykolaiv	501	29.7	3.94	3.68	3.46	2.95	3.51
2	Western Ukraine (Khmelnitskii, station Starokonstantinov <sup>1</sup> )	Odesa	343		4.19	3.93	3.70	3.16	3.75
3	Eastern Ukraine (Kharkiv, station Lihachevo)	Mykolaiv	340	18.8	4.23	3.96	3.72	3.17	3.77
4	Eastern Ukraine (Kharkiv, station Lihachevo)	Odesa	521		3.81	3.56	3.41	3.01	3.45
5	Central Ukraine (Cherkasy, station Zolotonosha <sup>1</sup> )	Mykolaiv	240	51.5	4.50	4.21	3.96	3.38	4.01
6	Central Ukraine (Cherkasy, station Zolotonosha <sup>1</sup> )	Odesa	341		4.22	3.95	3.71	3.16	3.76

<sup>1</sup>Although each origin region comprises several cities, the major station at the center of each region is considered as a reference to establish the freight price. Western Ukraine producing region = Chernivtsi, Ivano-Frankivsk, Khmel'nitskii, Lviv, Rivne, Ternopil, Vinnytsia, Volyn, Zakarpattia, and Zhytomyr provinces. Eastern Ukraine producing region = Dnipropetrovsk, Donetsk, Kharkiv, Luhansk, and Zaporizhia provinces. Central Ukraine producing region = Cherkasy, Chernihiv, Kherson, Kirovohrad, Kyiv, Mykolaiv, Odesa, Poltava, and Sumy provinces.

<sup>2</sup>Share is measured as a percentage of total production and illustrates the production in the region.

<sup>3</sup>Rail rates include the cost of delivery to the railway station and the cost of renting a grain hopper. However, rail rates do not include the cost of moving and positioning rail cars at the elevator and port, railway station fees, security service from loading to discharging port, or freight-forwarding service. (Any or all of these items could exceed the rail tariff rate.) Rail rates are estimated by using specialized software "TM-Karta" in accordance with Ukrzaliznytsia (UZ) tariff regulation.

Average monthly exchange rate from the National Bank of Ukraine was used to convert Ukrainian Hryvnia to U.S. dollars.

Note: qtr = quarter. mt = metric ton. Avg = average.

Source: Centre for Transport Strategies (CFTS) Kyiv, Ukraine, and USDA, Agricultural Marketing Service.





# Ukraine Grain Transportation

**Table 6. Monthly Ukrainian grain and oilseeds export truck transportation cost index**

Month	Freight price (US\$/mt/100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)
Jan-19	18.65	0.0	100.00
Feb-19	19.15	2.6	102.65
Mar-19	16.75	-12.5	89.81
Apr-19	14.92	-10.9	79.99
May-19	15.16	1.6	81.30
Jun-19	15.09	-0.5	80.93
Jul-19	15.53	2.9	83.28
Aug-19	15.84	2.0	84.94
Sep-19	16.15	1.9	86.58
Oct-19	16.12	-0.2	86.45
Nov-19	18.47	14.5	99.01
Dec-19	17.80	-3.6	95.42
Jan-20	17.41	-2.2	93.36
Feb-20	15.94	-8.5	85.45
Mar-20	16.43	3.1	88.10
Apr-20	13.58	-17.4	72.79
May-20	13.57	0.0	72.78
Jun-20	13.31	-1.9	71.39
Jul-20	10.74	-19.3	57.58
Aug-20	7.63	-29.0	40.91
Sep-20	9.87	29.4	52.92
Oct-20	7.77	-21.3	41.66
Nov-20	8.14	4.8	43.64
Dec-20	8.70	6.9	46.64

Note: Truck data collected from Zernovoz and JIT+, Kiev, Ukraine.

Source: Centre for Transport Strategies (CFTS) Kyiv, Ukraine, and USDA, Agricultural Marketing Service.



# Ukraine Grain Transportation

**Table 7. Quarterly ocean freight rates for shipping grain and soybeans from selected Ukrainian ports (US\$/metric ton)**

Cargo	Port	Destination	1st qtr 2019	2nd qtr 2019	3rd qtr 2019	4th qtr 2019
Wheat	Mykolaiv	Alexandria, Egypt <sup>1</sup>	--na--	--na--	16.33	15.83
Wheat	Mykolaiv	Ciwandan/Cigading, Indonesia <sup>2</sup>	--na--	--na--	39.92	35.58
Wheat	Odesa	Alexandria, Egypt <sup>1</sup>	--na--	--na--	14.58	14.08
Wheat	Odesa	Ciwandan/Cigading, Indonesia <sup>2</sup>	--na--	--na--	38.17	33.83
Corn	Mykolaiv	Alexandria, Egypt <sup>1</sup>	--na--	--na--	16.33	15.83
Corn	Mykolaiv	Southern ports, China <sup>2</sup>	--na--	--na--	38.08	36.25
Corn	Odesa	Alexandria, Egypt <sup>1</sup>	--na--	--na--	14.58	14.08
Corn	Odesa	Southern ports, China <sup>3</sup>	--na--	--na--	35.33	33.50
Soybeans	Mykolaiv	Southern ports, China <sup>3</sup>	--na--	--na--	37.08	35.25
Soybeans	Odesa	Southern ports, China <sup>3</sup>	--na--	--na--	35.33	33.50
Cargo	Port	Destination	1st qtr 2020	2nd qtr 2020	3rd qtr 2020	4th qtr 2020
Wheat	Mykolaiv	Alexandria, Egypt <sup>1</sup>	13.08	10.58	15.00	16.17
Wheat	Mykolaiv	Ciwandan/Cigading, Indonesia <sup>2</sup>	32.42	25.25	34.75	33.58
Wheat	Odesa	Alexandria, Egypt <sup>1</sup>	11.33	8.83	13.08	14.42
Wheat	Odesa	Ciwandan/Cigading, Indonesia <sup>2</sup>	30.67	23.50	32.83	31.83
Corn	Mykolaiv	Alexandria, Egypt <sup>1</sup>	13.08	10.58	15.00	16.17
Corn	Mykolaiv	Southern ports, China <sup>2</sup>	31.92	27.58	34.25	34.25
Corn	Odesa	Alexandria, Egypt <sup>1</sup>	11.33	8.83	13.08	14.42
Corn	Odesa	Southern ports, China <sup>3</sup>	29.17	24.83	31.50	31.50
Soybeans	Mykolaiv	Southern ports, China <sup>3</sup>	30.92	26.58	33.25	33.25
Soybeans	Odesa	Southern ports, China <sup>3</sup>	29.17	24.83	31.50	31.50

<sup>1</sup>Vessel size = 25,000-30,000 metric ton.

<sup>2</sup>Vessel size = 50,000-55,000 metric ton.

<sup>3</sup>Vessel size = 60,000-70,000 metric ton.

Note: China's main southern ports include Shanghai, Ningbo, Shenzhen, and Guangdong. na = not available.

Source: Centre for Transport Strategies (CFTS) Kyiv, Ukraine, and USDA, Agricultural Marketing Service.



# Ukraine Grain Transportation

## Acknowledgments:

For data, regional information, and maps of Ukraine, the author would like to thank the Centre for Transport Strategies in Kyiv, Ukraine. The author is, also, grateful for comments and critiques by USDA's Office of the Chief Economist, USDA's Foreign Agricultural Service in Washington, DC, and the Office of Agricultural Affairs in Kiev, Ukraine. Thanks, also, to USDA, Agricultural Marketing Service employees Maria Williams, editor, Kranti Mulik, economist, and Jessica Ladd, graphic designer.

## Contact Information:

Delmy L. Salin  
Senior Economist, Project Manager  
[delmy.salin@usda.gov](mailto:delmy.salin@usda.gov)  
202.720.0833

Jessica Ladd  
Graphic Analyst  
[jessica.ladd@usda.gov](mailto:jessica.ladd@usda.gov)  
202.720.6494

## Data Sets (XLS files):

- [Figure 1. Ukrainian grain export truck cost index, 2019-2020](#)
- [Table 1. Average semiannual costs of transporting Ukrainian wheat from the Black Sea ports to Egypt and Indonesia, July-December of both 2019 and 2020](#)
- [Table 2. Average semiannual costs of transporting Ukrainian corn from the Black Sea ports to Egypt and China, July-December of both 2019 and 2020](#)
- [Table 3. Quarterly costs of transporting Ukrainian wheat from the Black Sea ports to Egypt and Indonesia, 2020](#)
- [Table 4. Quarterly costs of transporting Ukrainian corn from the Black Sea ports to Egypt and China, 2020](#)
- [Table 5. Quarterly rail rates for selected Ukrainian grain and soybean export transportation routes, 2020](#)
- [Table 6. Monthly Ukrainian grain and oilseeds export truck transportation cost index](#)
- [Table 7. Quarterly ocean freight rates for shipping grain and soybeans from selected Ukrainian ports \(US\\$/metric ton\)](#)

## Preferred Citation:

Delmy Salin. April 2021. *Ukraine Grain Transportation*, U.S. Department of Agriculture, Agricultural Marketing Service. Web <<http://dx.doi.org/10.9752/TS260.04-2021>>

Photo Credit: USDA

USDA is an equal opportunity provider, employer, and lender.