

Wheat Market Outlook and Price Report: March 14, 2022

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i) Background and Rationale for the Report

The following wheat market outlook and price report will be published on a weekly basis on the Sask Wheat Website. The report provides producers with an overview of world wheat markets, a market forecast, and benchmark prices at both the primary elevator and export positions (FOB Vancouver or elsewhere).

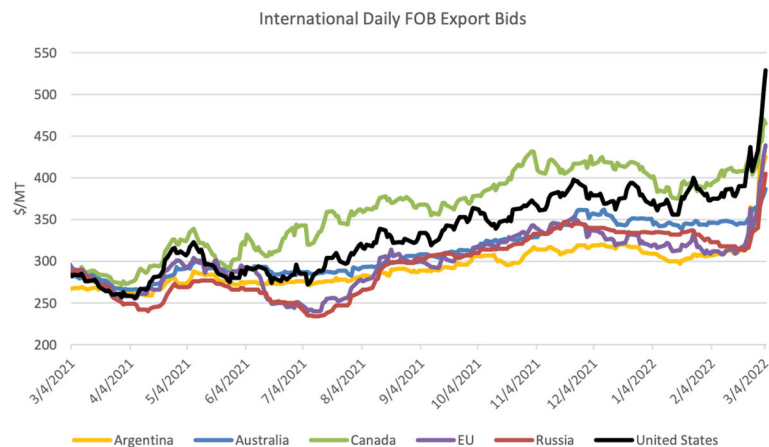
The report is made up of several sections. Following this section, a World Wheat overview is provided, which includes a summary of wheat market fundamentals, world production and trade, and a wheat market outlook. This is followed by several price tables, which include primary elevator bids at various Saskatchewan locations (Table 1), grain spreads (Table 2), and FOB port prices and basis (as measured by subtracting the primary elevator price (Rosetown) from the relevant port location price for individual crops) (Table 3). Table 3 is preceded by a description of the various assumptions, definitions and methodology used in arriving at the FOB port prices and in the export basis calculation.

ii) Wheat Market Outlook March 14, 2022

Wheat Price Response to the Invasion of Ukraine by Russia (USDA/ IGC):

Argentina	Australia	Canada	EU	Russia	United States
\$425	\$395	\$478	\$460	\$405	\$539

Note: As of March 7, 2022



Source: IGC

*Note on FOB prices: Argentina- 12.0%, up river; Australia- average of APW; Kwinana, Newcastle, and Port Adelaide; Russia - Black Sea- milling; EU- France grade 1, Rouen; US- HRW 11.5% Gulf; Canada- CWRS (13.5%), Vancouver

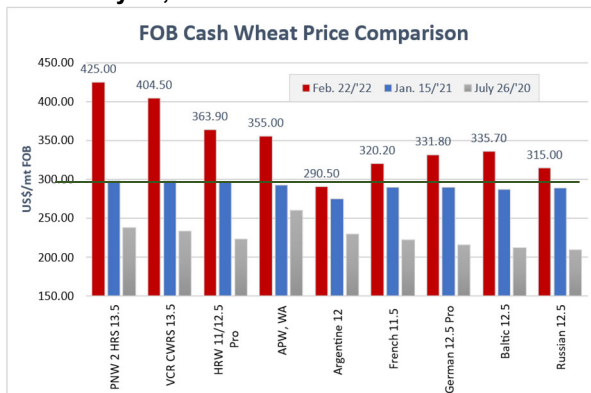
- Following the February 24, 2022 invasion of Ukraine by Russian troupes, global wheat prices for all major exporters made unprecedented moves higher in both cash and futures markets as importers of Black Sea wheat search for new wheat supplies.
- Specifically, **EU** quotes for export wheat increased by \$150/mt due to renewed strong demand from the Middle East and North Africa. Algeria has stated it will again allow French wheat imports in future tenders after disallowing French wheat this winter.
- **U.S.** quotes skyrocketed \$162/mt, which -- besides the crisis in Ukraine-Russia -- also reflects the continued dry weather across Kansas and Oklahoma, affecting the US the winter wheat crop.
- **Argentine** wheat quotes rose \$116/mt, supported by strong purchases from Brazil and several markets in Africa, the Middle East, and Southeast Asia.
- **Canadian** quotes increased by \$60/mt from the previous month, also reflecting tightening stocks resulting from last year's drought.
- **Australian** quotes for wheat rose the least, up \$47/mt given ample wheat supplies from the new crop.

Recent Developments in Wheat Demand:

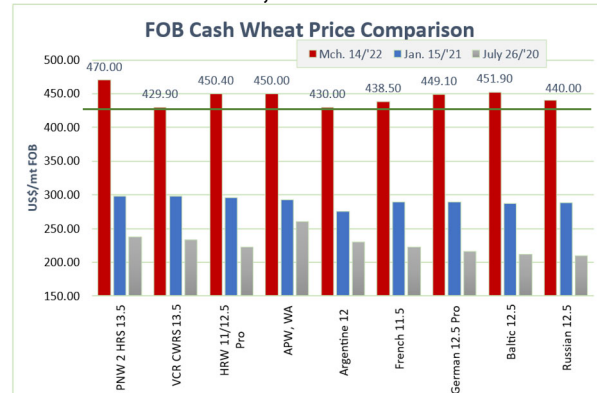
- *Egypt and Algeria are being forced to turn to French (EU) wheat, while Asian buyers are turning to India for wheat.*

It is very difficult to give a true reflection of FOB values right now:

February 22, 2022:



March 14, 2022:



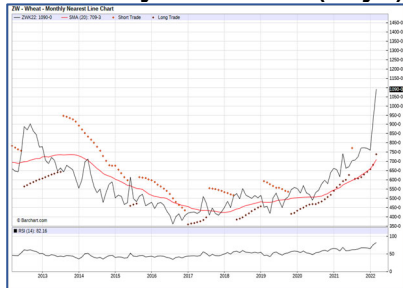
➤ Global wheat production and trade:

There is a lot of competition in the wheat markets as wheat is produced around the world. Below is a brief synopsis of last week's market events in the major wheat origins.

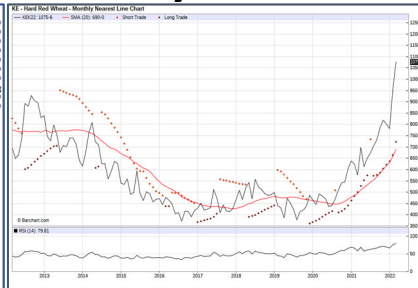
Futures:

- May 2022 contract **Chicago winter wheat** closed at 1106-4, up 19-4 cents on Friday, *down 102-6 cents on the week.*
- May 2022 contract **Kansas hard red winter wheat** closed at 1089-2, up 23-4 cents on Friday's trade, *down 125-2 cents on the week.*
- March 2022 **Minneapolis hard red spring wheat** closed at 1070-2, up 15-2 cents on Friday, *down 76-8 cents on the week.*
- This Tuesday morning wheat markets are mixed, currently showing -7c to +11c/bu, with KC currently strongest.

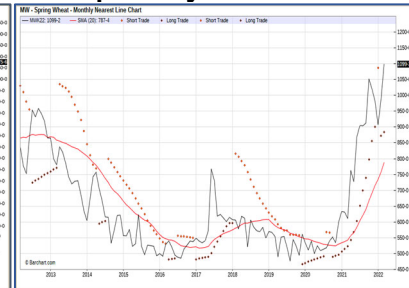
CBOT May 2022 Wheat (10 yr.)



KC May 2022 Wheat



Mpls. May 2022 Wheat

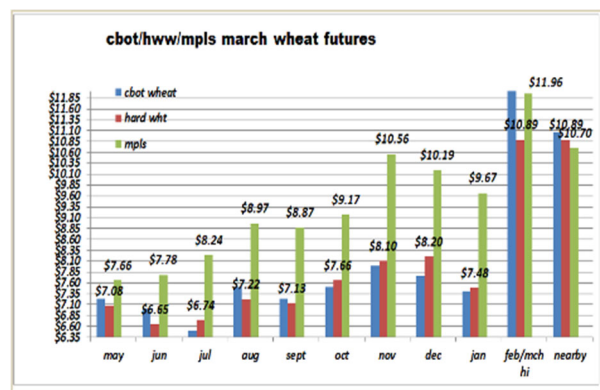
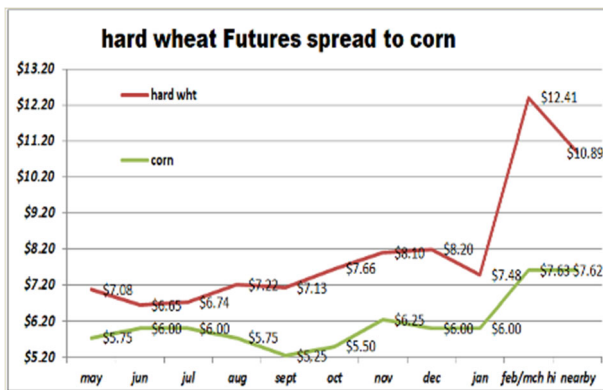


General Comment

The grain markets remained volatile as the Russian invasion of Ukraine continues. Several USA grain companies, including Cargill, continue to be active in Russia. The Ukrainian National Agrarian Forum, a coalition of the country's six biggest farming groups representing half the sector, has written to the CEOs of the world's multinational grain companies, urging them to stop buying grain from Russian ports until Russia fully withdraws its troops from Ukraine. We hope US companies will listen and cease profiting from the Ukrainian invasion.

Canadian Wheat:

- The Russian invasion of Ukraine will continue, and this will keep the grain markets volatile. In Russia, inflation of food products will become a major issue as farmers realize how much they are losing due to the depreciation of their currency against the dollar. We expect that the Russians will shell more civil targets. We expect corn to make new highs during the week.
- *We expect the Kansas City wheat futures to narrow to corn.* Delivered to destination prices will need to go higher, but origin carry out will be sufficient to keep exports going.



- It is important to understand that the cheapest/ most easily available wheat to the Middle East and Asia has mostly been taken off the market for now (though Russia says it will continue shipping). Some countries have initiated export bans (Hungary, Serbia, Turkey, Moldova, Egypt). This will not affect export volumes but is designed to combat food price inflation domestically. Meanwhile, Egypt and Algeria have been forced to turn back to French wheat, and Asian buyers are turning to India to buy wheat.

- For Canadian farmers, this has been presenting great old crop pricing opportunities, and everyone should try drawing current crop-ending stocks to zero!
- **Durum:** Not much new here from last week. This market is not really touched by the Russia-Ukraine conflict and current crop durum trading is mostly done.
- **Durum exports** for week 31 were a tiny 14k mt, for a year-to-date total of 1.5 million mt, compared to 3.6million mt last year-to-date. This is now just 42% of last year's pace.

(CGC) Grain Handling Summary - Durum			Week 31	(March. 6/'22)
(000 mt)	Producer Deliveries	Terminal Receipts	Bulk Exports	Domestic Disappearance
Week 31	33.7	20.6	13.8	5.4
Week ago	20.8	20.0	34.3	6.2
YTD	1,787.4	2,077.0	1,503.8	278.2
Last YTD	3,893.2	4,297.5	3,595.9	337.6
YTD less Last YTD	-2,105.8	-2,220.5	-2,092.1	-59.4
YTD over Last YTD	46%	48%	42%	82%

US Wheat:

- We received **the USDA-WASDE reports last Wednesday:**
The major change of note was for Australia, where wheat production was increased by 2.3 million mt, which was expected by the trade. World demand for feed wheat was raised 1.5 million mt, world non-feed demand lowered 2.5 million mt.
- Regarding trade numbers, global imports were lowered 2.5 million mt (because of disrupted trade flows from Russia-Ukraine), mostly in N Africa and the Middle East. World exports were lowered 3.5 million mt. - Russia was down 3 million mt to 32 million mt (some argue this still is too high). Ukraine was put down 4 million mt to 20 million mt (some think this is also too high). Australian exports were raised to 27.5 million mt and India raised to 8.5 million mt in compensation of the Russia-Ukraine problem. Curiously, US exports were lowered 300k mt because of "weaker than expected sales".
- Overall strength in the grains complex followed the news that China purchased 2.1 million mt of U.S. corn Friday, and confirmation that the Russian government increased its wheat export tax to €50/mt for March 1 to June 30, supported all wheat futures.
- World stocks as shown in the USDA report actually rose by 3 million mt, with increases of 2.5 million mt in Russia and 3 million mt in Ukraine due to the lower exports. - *The question being debated is if these stocks are actually available to the market and how to handle this statistically.*
- US weekly export sales of 307k mt (middle of trade expectations) took the season total to 684 million bu, down 23% on last year.
- How the world sorts out the wheat trade matrix given the conflict in the Black Sea region remains to be seen. It is not clear yet how much demand needs to be rationed and at what price level that will happen. - Meanwhile, price volatility will stay with us.
- US HRS for April 2022 is valued at \$470.00/ mt FOB PNW (up \$12/mt from last week, and up \$45/mt since Feb. 14), FOB Gulf HRW 11/12.5 pro is valued at \$479.60/mt (down \$29.60/mt from last week, up \$24.90/mt since February 24).

Australian wheat:

- USDA increased Australian 2021/22 wheat production by 2.3 million mt, which was expected by the trade. Australian wheat exports were raised to 27.5 million mt.
- Due to prior export commitments relative to port capacities, Australia is now looking as far forward as October-November for additional sales.
- Australian new crop FOB APW wheat for April 2022 was quoted at \$450.00/mt, up \$65/mt over the past week.

Argentine wheat:

- Argentina's current crop is essentially already committed.
- April shipment Argentine 12% pro wheat was valued at ~\$430.00/mt FOB, up \$70/mt the previous week.

EU wheat:

- Matif wheat traded in a €25 range last week, closing €22/mt off the highs. It is up €10/mt this Monday.
- There is talk about volume French sales to Mexico.
- Algeria bought wheat from France. Algeria had banned the purchase of French wheat earlier this winter.
- FOB prices in the EU: April 2022 French 11.5 pro closed at \$438.50/mt, up \$8.60/mt from last week (up \$118.30/mt since February 24). April German 12.5 pro wheat closed at \$449.10/mt, up \$3.10/mt (up \$117.10/mt since February 24). April Baltic 12.5 pro wheat was at \$446.90/mt, up \$2/mt (up \$115/mt since February 24).

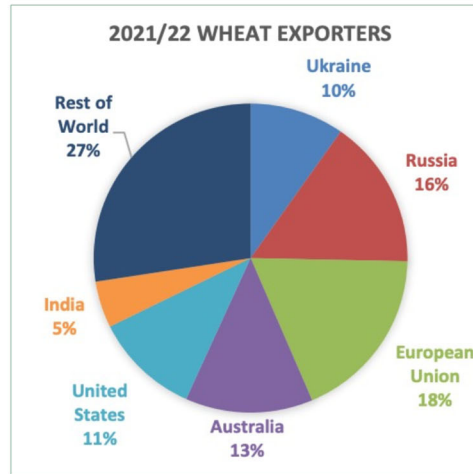
Black Sea wheat:

- The collapse of the ruble to the USA dollar has caused food prices to escalate in Russia.
- USDA-WASDE report: Regarding trade numbers, global imports were lowered 2.5 million mt (because of disrupted trade flows from Russia-Ukraine), mostly in North Africa and the Middle East. World exports were lowered 3.5 million mt. - Russia was down 3 million mt to 32 million mt (some argue this still is too high), and Ukraine was lowered by 4 million mt to 20 million mt (which some think is also too high). World stocks actually rose by 3 million mt, with increases of 2.5 million mt in Russia and 3 million mt in Ukraine due to the lower exports. - *The question being debated is if these stocks are actually available to the market and how to handle this statistically.*
- **Comments on Russia-Ukraine:** There are two major questions re. the availability of grain from Russia-Ukraine given the war: a) How much current crop grain will (in the case of Ukraine: 'can') still flow from that region this ongoing crop year, and b) how much 2022 crop can be grown, harvested, and shipped from Ukraine? The many questions around both old crop availability and new crop potential, as well as which countries this is going to affect most are what is being reflected in changing risk premiums in the wheat markets. And there are no ready or easy answers to that because much depends on Putin's decisions around the war.
- Russian April 2022 12.5 pro wheat value is at ~\$440.00/mt, up \$45/mt from last week (up \$125/mt since the invasion of Ukraine).

- Some basic details about the importance of Russian and Ukrainian wheat in the global markets:

Wheat export market shares

- Canada 13.3% (15.5 mln mt) F'21/22



Source: USDA, 03-22

Wheat export destinations – Ukraine

(FAOSTAT)

~ 36% to M.E.

Country (2020 Rank)	2017	2018	2019	2020
Egypt	2,659,339	1,396,268	1,767,563	3,075,224
Indonesia	2,055,069	2,606,432	2,675,197	2,718,664
Bangladesh	1,971,307	914,599	0	1,514,725
Pakistan	0	0	0	1,244,446
Turkey	597,390	237,374	1,108,987	1,003,760
Tunisia	818,131	1,026,530	983,202	984,016
Morocco	619,308	1,385,245	888,027	952,039
Yemen	158,350	519,586	336,580	708,249
Lebanon	396,889	287,586	357,072	669,663
Philippines	876,760	1,754,936	1,218,109	631,966
Rest of the World	7,160,632	6,244,834	4,566,469	4,552,922

Wheat export destinations – Russia

(FAOSTAT)

~ 28% to M.E.

Country (2020 Rank)	2017	2018	2019	2020
Egypt	7,835,347	9,576,778	6,129,970	8,254,555
Turkey	3,448,572	4,974,083	7,035,357	7,900,550
Bangladesh	1,923,411	1,862,359	2,582,342	1,940,855
Azerbaijan	1,213,909	702,353	1,285,439	1,385,007
Sudan	1,454,593	2,149,574	986,953	1,333,409
Pakistan	0	0	0	1,173,081
Nigeria	1,386,392	1,975,421	894,730	998,131
Yemen	1,435,240	1,343,464	880,507	796,103
Tanzania	680,662	760,614	516,097	700,911
United Arab Emirates	970,737	706,328	736,157	674,558
Rest of the World	12,665,684	19,914,655	10,825,623	12,109,856

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Longer term implications – What abt the ‘22/23 crop?

Winter vs. spring sdd crops Ukraine:

- **Ukraine has 90% winter wheat areas; 10% on spring crop**
- **Barley usually 45% winter; 55% spring-sdd.**
- **Rapeseed 99.99% winter**
- **Corn, soy and sunflower seeds planting starts in the mid April and till end of May**

Most optimistic view:

Large farms have all inputs except of fuels - here could be shortage but hope not on all areas
In areas with Russian invasion, we partly could not put fertilizers in winter crops which could lead to lower yields

Others:

Ukr. will be hard pressed to produce 20 mln mt of wheat (i.e., feed themselves) if war persists !! (35.5 '21)

Not 5-6 mt/ha, but perhaps 1-2 mt/ha yields; NO exports

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➤ **Significant purchases/ trades:**

- **Iran** bought a reported 240K mt of wheat; we have no price details.
- **Tunisia** bought 125K mt of wheat. The wheat was bought in five consignments of ~25K mt. Casillo sold four at \$491.68, \$499.69, \$505.68 and \$508.89 per tonne C&F. Cargill sold one at \$497.25 /mt C&F.
- There was talk that a volume of French wheat was sold to **Mexico**.
- **Algeria** and **Iraq** are said to have bought wheat.
- **USA** export sales of 307K tonnes took the season total to 684 million bushels, down 23% from last year.

➤ **Wheat Market Outlook:**

Significant events:

- Following the February 24, 2022 **invasion of Ukraine** by Russia, global wheat prices for all major exporters made unprecedented moves higher in both cash and futures markets as importers of Black Sea wheat search for new wheat supplies.
- **Egypt and Algeria** are being forced to turn to French (EU) wheat, while Asian buyers are turning to India for wheat.
- The Russian invasion of Ukraine will continue, and this will keep the grain markets **volatile**.
- World wheat stocks as shown in the **USDA report** last Wednesday actually rose by 3 million mt, with increases of 2.5 million mt in Russia and 3 million mt in Ukraine due to the lower exports. - *The question being debated is if these stocks are indeed available to the market and how to handle this statistically.*
- How the world sorts out the **wheat trade matrix** given the conflict in the Black Sea region remains to be seen. It is not clear yet how much demand needs to be rationed and at what price level that will happen. - Meanwhile, price volatility will stay with us.
- **Longer-term effects** of the war: The many questions around both old crop availability and new crop potential, as well as which countries this is going to affect most is what is being reflected in changing risk premiums in the wheat markets.

Outlook:

How the world sorts out the wheat trade matrix given the conflict in the Black Sea region remains to be seen. It is not clear yet how much demand needs to be rationed and at what price level that will happen. Meanwhile, price volatility will stay with us. The collapse of the ruble to the USA dollar has caused food prices to escalate in Russia. We expect the Kansas City wheat future to narrow to corn. Delivered to destination prices will need to go higher, but origin carry out will be sufficient.

Canadian farmers should view the price increases as presenting great old crop pricing opportunities, and should try drawing current crop-ending stocks to zero!

iii) Primary Elevator Price Tables and Grade Spreads

Table 1: Canadian Primary Elevator Bids, in Canadian Dollars per Bu and per MILLION MT

Date: 14-03-2022					
NW Sask	Spot		NW Sask	Deferred	
	(bu.)	(mt)		May '22 (bu.)	May '22 (mt)
1 CWRS 13.5	\$12.69	\$466.28	1 CWRS 13.5	\$12.91	\$474.37
1 CWAD 13.0	\$15.62	\$573.94	1 CWAD 13.0	\$15.16	\$557.04
1 CPSR 11.5	\$11.89	\$436.89	1 CPSR 11.5	\$12.04	\$442.40
SW Sask			SW Sask		
1 CWRS 13.5	\$12.61	\$463.34	1 CWRS 13.5	\$12.82	\$471.06
1 CWAD 13.0	\$15.62	\$573.94	1 CWAD 13.0	\$15.22	\$559.24
1 CPSR 11.5	\$11.97	\$439.83	1 CPSR 11.5	\$11.91	\$437.62
NE Sask			NE Sask		
1 CWRS 13.5	\$12.41	\$455.99	1 CWRS 13.5	\$12.63	\$464.08
1 CWAD 13.0	\$15.84	\$582.02	1 CWAD 13.0	n/a	
1 CPSR 11.5	n/a		1 CPSR 11.5	n/a	
SE Sask			SE Sask		
1 CWRS 13.5	\$12.39	\$455.26	1 CWRS 13.5	\$12.60	\$462.97
1 CWAD 13.0	\$15.61	\$573.57	1 CWAD 13.0	n/a	
1 CPSR 11.5	\$11.71	\$430.27	1 CPSR 11.5	\$11.86	\$435.78

Data source: PDQ, March. 14, 2022

Table 2: Grade Spreads, in Canadian Dollars per Bu and per MILLION MT

Avg. Grade Spread/ Pro Discounts	Cdn\$/bu.	Cdn.\$/mt
1 CWRS 13.5	Base Grade	Base Grade
2 CWRS 13.5	(0.10)	(3.67)
1 CWRS 12.5	(0.02)	(0.85)
1 CWAD 13.0	Base Grade	Base Grade
1 CWAD 13.5	0.00	0.00
2 CWAD 13.5	(0.09)	(3.31)
2 CWAD 12.5	(0.11)	(4.04)

Data source: PDQ, March 14, 2022

iv) FOB Wheat Prices and Export Basis Calculation

Background and Rationale:

Reporting FOB prices at port position and primary elevator prices allows the reader to gain an understanding of both local and international wheat prices and to understand the relationship between the two, as measured by the export basis. Export basis can be defined as FOB port position prices minus the primary elevator prices at any given prairie delivery location and is therefore reflective of transportation costs plus any premiums being captured by terminal grain elevator companies or the railway companies, at any given time.

In general, a widening basis is indicative of decreasing system performance in terms of either reduced port capacity or rail service, or both. A narrowing basis is indicative of increased available port capacity and/or better ability of the railways to provide ample service to grain shippers. In this regard, tracking these prices over time has value both in terms of producers being able to time the selling of their grain but also in terms of evaluating and setting policy related to various transportation and capacity issues.

Gray (2015) has calculated a normal basis to be in the range of C\$72/million mt. During the 2013/14 crop year the export basis for wheat widened to approximately C\$250/million mt, which indicated an inability of the grain handling and transportation system to adequately handle the record crop produced that year. This occurrence has highlighted the need to improve the level of rail service and take measures to expand port capacity where possible. It has also underscored the need for better price transparency and market information within the grain sector.

Assumptions, Definitions, and Methodology

The following background information should assist in understanding and interpreting international market signals and to relate them to the 'local' Saskatchewan wheat market:

- The price information generated for the weekly report is designed to show farmers at what price levels several wheat classes are trading at local primary elevators (Table 1) and in nearby international markets (Table 3). To express the Export Basis¹ (see *Export Basis* in Table 3) defined as Canadian FOB Prices minus primary elevator bids, the FOB prices are translated into Canadian dollars from US dollars and compared to current actual primary elevator Street prices at Rosetown, Saskatchewan (see *Street Prices* in Table 3). Rosetown is used as a proxy for all primary elevators in the basis calculation. The actual handling and transportation costs from the West Coast to delivered elevator (Rosetown area) range from ~C\$58.00-C\$74.72/million mt, depending on number of cars moved and elevator used.
- Approximate relationship between U.S. wheat classes and Canadian wheat classes:
 - DNS 14% in the Pacific North West (PNW) ≈ 1 CWRS 13.5% in Vancouver
 - HRS in the Pacific North West (PNW) ≈ 2 CWRS 13.0% in Vancouver

¹ Gray, R.S. (2015). The Economic Impacts of Elevated Export Basis Levels on Western Canadian Grain Producers 2012/13, 2013/14 and 2014/15.

“The difference between FOB Vancouver prices and the Saskatchewan elevator cash bids to producers is referred to as export basis: Basis can refer to the difference between any two prices. As the largest volume port, Vancouver FOB, minus the elevator bid prices representative measure of the “export” basis for grains in Western Canada.”

- HRW in the Pacific North West (PNW) ≈ 3 CWRS in Vancouver
 - SW (lowest price wheat) ≈ CPS red (mostly fed domestically)
 - HAD (Lakes) ≈ CWAD (Thunder Bay/ Lawrence)
 - Abbreviations: DNS (Dark Northern Spring Wheat); HRS (Hard Red Spring Wheat); HRW (Hard Red Winter Wheat); SW (Soft Wheat); HAD (Hard Amber Durum Wheat); CWRS (Canadian Western Red Spring Wheat); CPS (Canada Prairie Spring Wheat); CWAD (Canadian Western Amber Durum Wheat)
- Hard wheat price calculations:
Exporters in Western Canada generally derive their primary elevator wheat prices from HRS values at the West Coast (Pacific Northwest - PNW). Similarly, HRW values are used for lower grade (3) CWRS.
- West Coast HRS and HRW values essentially dominate the international hard wheat trade and determine its basic value.
 - If premiums are paid for 1 CWRS 13.5, elevator companies are often able to retain the premium
- Durum wheat price calculations:
The primary export route for Canadian durum wheat is still through Thunder Bay, not the West Coast of Canada.
- Nevertheless, the Pacific Coast has increased in importance for durum over time with 38% of total export volume crop year to date.
 - Italy is the single biggest buyer of Canadian durum wheat with 27% of total Canadian durum exports year-to-date (East Coast shipments).
- Optional origin grain sales:
Most major international grain companies sell 'optional origin' wheat to their customers and often cover their sales 'at best' closer to the shipment position. The Canadian grain system is not conducive to servicing optional origin sales because the volume of wheat kept in storage in port today is much smaller than prior to deregulation of the Canadian wheat market.

Table 3: Relevant FOB Prices and calculated Basis, US & Canadian Dollars per MT

Relevant FOB Prices and Export Basis				14-03-2022
Type of Wheat	FOB Prices CDA ¹ (calculated)		Street Prices	Export Basis ²
	West Coast (Cdn./mt\$)	Great Lakes (Cdn.\$/mt)	Rosetown (Cdn.\$/mt)	Basis: West Coast-Centr. SK (Cdn\$/mt)
DNS 14.0	\$537.74	\$767.60		
HRS	\$530.69			
HRW 11.5	\$572.52			
SWW 12.0	\$561.24			
1 CWRS 13.5 ³	\$537.74		\$480.24	\$57.50
2 CWRS 13.0 ³	\$530.69		\$477.67	\$53.02
3 CWRS ³	\$572.52		\$468.49	\$104.04
CPS ³	\$554.66		\$429.17	\$125.49
1 CWAD ⁴		\$761.01	\$551.16	\$209.85
Competing wheat:				
	US\$/mt			
Russia 12.5 (Black Sea, 25k mt)	\$440.00	April		
French 11.5 (Rouen)	\$438.50	April		
APW 10.5 (W Coast)	\$450.00	April		
Argentine 12.0	\$430.00	April		

¹ FOB Prices CDA = FOB US\$ converted into Canadian Currency
² Export Basis = FOB Prices CDA minus Cdn. Street Price
³ DNS 14% ≈ 1 CRWS 13.5%; HRS ≈ 2 CWRS 13.0%; HRW ≈ 3CWRS; SWW ≈ CPS
⁴ Values derived to Lakehead FOB