

Wheat Market Outlook and Price Report: August 12, 2019
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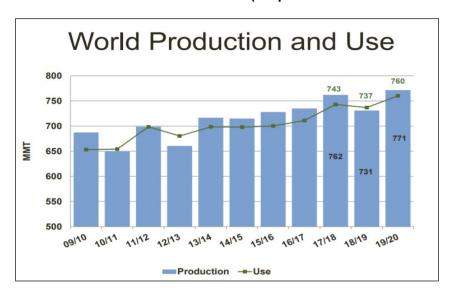
i) Background and Rationale for the Report

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 Aug 12, 2019

USDA June 11/'19 World Wheat Production and Use (Graph Source: US Wheat Associates)



- Trade was quite through the week as the market positioned for today's (12:00 PM ET) USDA supply and demand report.
- The main factor that will drive wheat higher or lower is the USDA's numbers for corn. Average trade guesses for corn is for 88 mln planted acres, 80 mln harvested acres, a 165 bpa yield and 13.2 bln bu worth of production. The range of these estimates are very wide. The U of I is estimating 85-86 mln planted acres and yield models support a 163 bpa number.
- In their June 11 report, the USDA put world wheat production and consumption at record levels at 771 mln and 760 mln mt respectively. Wheat trade was expected to be 183 mln mt. With a smaller than expected Russian crop, it is likely that the USDA will lower global supply some, but as exports from Russia have been slow and demand has been scarce, they could lower global demand an equal or greater amount than their change in production.
- Trade is expecting that wheat carry-out in the US will be 999 mln bu vs the USDA's 1 bln bu. Current US sales are strong and could prompt the USDA to rise US export expectations.



> 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 on last week's market events in the major wheat origins.

Futures: Sept '19 contract Chicago winter wheat closed at 499-4, up 1-0 cents in Friday's trade, up 7-6 cents for the week.

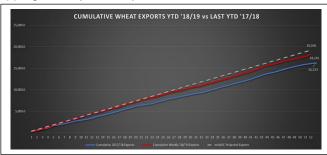
Sept '19 contract Kansas hard red winter wheat closed down 1-4 cents at 417-0, down 5-6 cents for the week.

Minneapolis Sept '19 contract hard red spring wheat closed at 519-6, down 0-6 cents in Friday's trade, down 3-0 cents for the week, while Dec '19 hard red spring wheat closed at 530-6, down 1-2 cents for the day, down 4-0 cents for the week.

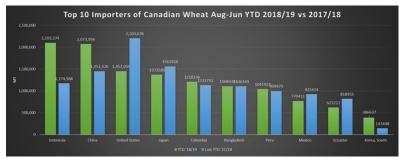
Canadian Wheat:

The CGC released the data for the final shipping week (week 52) of the Canadian 2018/19

marketing year. In week 52, Canadian producers delivered 450.8k mt of wheat (excl. durum) into the grain handling system for a grand total of 21.18 mln mt, up 13% from last year. Exports through the week were a large, 480.9k mt, for a season total of 18.24 mln mt, up 12% (2.01 mln mt) from last year but a whole 1 mln mt below AAFC's 19.2 mln mt estimate.

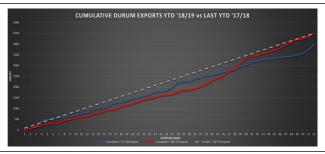


According to the Canadian International Merchandise Trade Database. both Indonesia and China have imported 2.1 mln mt of Canadian wheat as of June 2019. While this is a 43% (621.4k mt) increase for China y/y it is a 79% (928.3k increase y/y Indonesia. This has been a



welcome occurrence, as without these two very large increases, Canadian wheat exports would have struggled significantly as Japan, the US, Mexico and Ecuador have all had significant decreases in Cdn. wheat imports y/y. The largest of these decreases being the US who has imported just 66% of last year's YTD total. A 751.6k mt decrease from last year.

Canadian producers delivered 193.5k mt of durum into the Canadian grain handling system during week 52. Total deliveries are up 15% from last year at 4.78 mln mt. Exports during the week were 67.3k mt for a season total of 4.52 mln mt, up 13% (532.2k mt) from last year, just surpassing the AAFC's estimate of 4.5 mln mt.



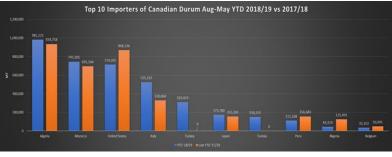
Through the end of June, Algeria continues to be the largest importer of Canadian durum, followed by Morocco

and the US. Exports to Algeria and Morocco are 5% and 7% higher y/y respectively while the US has only imported 82% of the amount has last YTD. The US is having a strong 2019 crop which will cause US imports to be down again in 2019/20. Italy's appetite for Canadian durum may be



slowing returning. The country has imported 60% (197k mt) more durum this year over last, making us cautiously optimistic.

 With little rain in the past 2-3 weeks, soil moisture in the Cdn. Prairies is deteriorating. The SK crop report indicated that 39% (most of the SW



region) of the cropping region is short on soil moisture (up from 22% last week). Northern AB has seen excessive rainfall that is hurting crops while the S part of the province is too dry. Spring wheat conditions in AB fell 3.3% over the past two weeks to 71.7% G/E (vs 64.2% last year). Early yield estimates for the AB spring wheat crop are 49.3 pba vs 45.8 bpa this time last year. Excessive dryness in Alberta's South is hurting their durum crop as AB Ag is estimating durum crop yields to be 28.8 bpa vs last year's 33.3 bpa estimate.

Harvest has begun in MB and parts of SK, so far, yields have been average-slightly below average.

US wheat:

- The NASS crop report left US spring wheat conditions unchanged at 73% G/E vs 74% last year. Spring wheat harvest began and progressed 2% last week (vs 12% last year and 14% avg.).
- The Northern US durum crop is nearly 100% headed and 50% of the crop has turned color.
- Winter wheat harvest progressed 7% over the week and is 82% complete (89% last year and 92% avg.).

Australian wheat:

Australia will receive more rain, but farmers remain concerned about the long-term forecast. New
crop farmer sales are just 15% vs the more typical 30% for this time of year. Private estimates of
the Aussie crop are falling below the USDA's 21 mln mt.

Argentine wheat:

• Planting in Argentina is complete having covered 6.6 mln ha, up 1.3% from last year and the second highest in 30 years. Crop ratings were up 2% on the week with G/E at 54% vs 47% last year.

EU wheat:

- Harvest in Germany, the Baltic, Scandinavia and the UK has been slow because of rain. The rest
 of Europe is essentially complete.
- France's Farm Ministry raised estimates for soft wheat production from 37 mln mt in July to 38.2 mln mt. If realized, this would be 12% higher than last year.

Black Sea wheat:

- Saudi Arabia raised its tolerance for bug damage from 0% to 0.5%, which effectively allows
 imports of Russian and Romanian wheat. Saudi is an annual 3-3.5 mln mt market that is usually
 served by German and Baltic wheat. Freight spreads between the EU and Black Sea are now
 even more important as they will dictate who gets the demand. The current German-Russian
 freight spread is \$5.
- Harvest data in Russia continues to normalize with last year. Yields are just -0.5% lower (vs USDA's 3.7% increase) which argues a 72-74 mln mt crop (USDA's 74.2 mln mt).
 UkrAgroConsult lowered their estimate to 74.5-75 mln mt vs 76.7 mln mt previously. The current range of estimates for the Russian crop is 71.7 mln mt to 81.7 mln mt.



> Significant purchases/ trades:

- Egypt (GASC) bought 415,000 tonnes of Black Sea wheat for 5-15 Sep at an average \$219 C&F; Saudi and the UAE have provided 540,000 tonnes of Black Sea/FSU wheat to Sudan (about 3 months of demand); Saudi relaxed its quality specs on bug damage.
- USA inspections were 395,000 tonnes (season total 155 myn bushels up 26%), sales were 488,000 tonnes for a season total 345 myn bushels, up 25% on last year (USDA up 1.5%).

Wheat Market Outlook:

Significant events:

- China announced that it will suspend all purchases of US Ag products. The move comes days after President Trump announced another 10% levy on \$300 bln of Chinese goods.
- Morocco's Agriculture Ministry recently reduced the country' grains harvest forecast from 6.10 MMT in April to 5.20 MMT due to summer rainfall shortages. If realized, Moroccan production would fall 49% from 2018/19 levels. Moroccan farmers are now expected to harvest 2.68 MMT of soft (non-durum) wheat and 1.34 MMT of durum wheat in 2019. According to USDA, Moroccan wheat imports are expected to reach 4.80 MMT in 2018/19, 17% above last year's levels and 11% higher than the 5-year average of 4.34 MMT, if realized.
- Saudi Arabia raised its tolerance for bug damage from 0% to 0.5%, which effectively allows imports of Russian and Romanian wheat. Saudi is an annual 3-3.5 mln mt market that is usually served by German and Baltic wheat. Freight spreads between the EU and Black Sea are now even more important as they will dictate who gets the demand. The current German-Russian freight spread is \$5.

Weather around the world:

 USA: Some showers but mostly ongoing dryness with temperatures trending above normal. Canada: Warm with near normal precipitation. Europe: Warm except France, dry except Germany, Scandinavia and the UK. Black Sea: Warm and dry. South America: Dry and warm in Brazil, dry and cold in Argentina. Australia: Dry except for a few very light showers in the South East.

Outlook:

The trade does not expect a bullish wheat report Today and world wheat market still lacks an independent demand driver. Prices will be determined upon what the USDA predicts on corn and soybeans acres/yields. US wheat futures were mixed, but of note is the Kansas City record 83 cent discount to Chicago and its 7-cent premium to corn. In our view, Kansas City wheat is undervalued compared to corn.



iii) Primary Elevator Price Tables and Grade Spreads

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

NW Sask	Spot		NW Sask	Deferred		
	(bu.)	(mt)	IVVV Sask	Oct. '19 (bu.)	Oct. '19 (mt.)	
1 CWRS 13.5	\$5.93	\$217.89	1 CWRS 13.5	\$5.97	\$219.36	
1 CWAD 13.0	\$6.34	\$232.96	1 CWAD 13.0	\$6.32	\$232.22	
1 CPSR 11.5	\$5.04	\$185.19	1 CPSR 11.5	\$5.05	\$185.56	
SW Sask			SW Sask			
1 CWRS 13.5	\$5.83	\$214.22	1 CWRS 13.5	\$5.88	\$216.05	
1 CWAD 13.0	\$6.34	\$232.96	1 CWAD 13.0	\$6.38	\$234.43	
1 CPSR 11.5	\$4.78	\$175.64	1 CPSR 11.5	\$4.86	\$178.58	
NE Sask			NE Sask			
1 CWRS 13.5	\$5.69	\$209.07	1 CWRS 13.5	\$5.73	\$210.54	
1 CWAD 13.0	\$6.33	\$232.59	1 CWAD 13.0	\$6.52	\$239.57	
1 CPSR 11.5	\$4.82	\$177.11	1 CPSR 11.5	\$4.79	\$176.00	
SE Sask			SE Sask			
1 CWRS 13.5	\$5.68	\$208.71	1 CWRS 13.5	\$5.72	\$210.18	
1 CWAD 13.0	\$6.45	\$237.00	1 CWAD 13.0	\$6.58	\$241.78	
1 CPSR 11.5	\$4.78	\$175.64	1 CPSR 11.5	\$4.78	\$175.64	

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

Avg. Grade Spread/ Pro Discounts	Cdn\$/bu.	Cdn.\$/mt	
1 CWRS 14.0	0.05	1.89	
1 CWRS 13.5	Base Grade	Base Grade	
2 CWRS 13.5	(0.05)	-1.84	
1 CWRS 12.5	(0.15)	-5.51	
1 CWAD 13.0	Base Grade	Base Grade	
1 CWAD 13.5	0.00	0.00	
2 CWAD 13.0	0.00	0.00	
2 CWAD 12.5	(0.10)	-3.67	

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/tonne. During the 2013/14 crop year the export basis for wheat widened to approximately C\$250/tonne, 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 Cdn. FOB Prices minus primary elevator bids, the FOB prices are translated into Cdn. 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/mt, depending on number of cars moved and elevator used.
- > Approximate relationship between U.S. wheat classes and Canadian wheat classes:
 - o DNS 14% in the Pacific North West (PNW) ≈ 1 CWRS 13.5% in Vancouver
 - o HRS in the Pacific North West (PNW) ≈ 2 CWRS 13.0% in Vancouver
 - o 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 (Canadian 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.

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.

[&]quot;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."



- 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 YTD (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

Releveant FOB Prices and Export Basis August 12, 2019					
	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)	
Type of Wheat					
DNS 14.0	\$297.62	\$283.54			
HRS	\$293.25				
HRW 11.5	\$265.09				
SWW 12.0	\$292.28				
1 CWRS 13.5 ³	\$297.62		\$211.28	\$86.34	
2 CWRS 13.0 ³	\$293.25		\$203.93	\$89.32	
3 CWRS ³	\$265.09		\$192.91	\$72.19	
CPS ³	\$285.48		\$171.59	\$113.89	
1 CWAD ⁴		\$307.33	\$0.00	\$307.33	
Competing wheat:	US\$/mt				
Russia 12.5 (Black Sea, 25k mt)	\$195.00				
French 11.5 (Rouen)	\$191.40				
APW 10.5 (W Coast)	\$240.00				
Argentine 12.0	n/a				

¹ FOB Prices CDA = FOB US\$ converted into Canadian Currency

² Export Basis = FOB Prices CDA minus Cdn. Street Price

 $^{^3}$ DNS 14% \approx 1 CRWS 13.5%; HRS \approx 2 CWRS 13.0%; HRW \approx 3CWRS; SWW \approx CPS

⁴ Values derived to Lakehead FOB



ADDENDUM

Futures Driven Basis Calculation, Canadian Dollars per MT

Canadian Wheat - World Price	Parities				August 12, 20
Canadian Funds			Grade		
PNW value/Vancouver	1CWRS13.5	2CWRS	3CWRS	Winter wht.	CPS
May/June delivery	\$7.91	\$7.80	\$7.03	\$7.77	\$7.77
Parity Track Rosetown	\$6.42	\$6.30	\$5.53	\$6.27	\$6.27
Track Bid Rosetown Area	\$5.75	\$5.55	\$5.25	\$4.67	\$4.67
Gross Margin at Elevator (\$/bu)*	\$0.67	\$0.75	\$0.28	\$1.60	\$1.60
Gross Margin at Elevator (\$/mt)*	\$24.56	\$27.54	\$10.40	\$58.91	\$58.91
* to cover elevation, elevator market risk, margin					