

Wheat Market Outlook and Price Report: September 30, 2019
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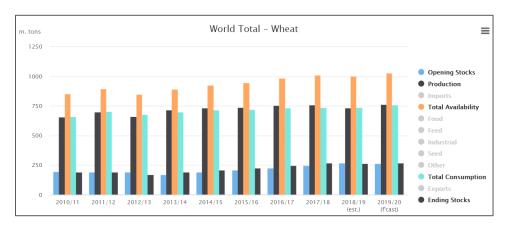
i) Background and Rationale for the Report

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 Sept 26, 2019

International Grains Council (ICG) September 2019 World Supply and Demand



- In their September estimate, the ICG lowered global wheat consumption 1 mln mt to 757 mln mt. This remains a 2% (18 mln mt) increase over last year.
- Production was left unchanged at 764 mln mt (+31 mln mt y/y) and trade was also unchanged from last month at 172 mln mt (+3 mln mt y/y).
- Unchanged supply, but lower demand caused the ICG's estimated for 2019/20 carry-out to be
 1 mln mt higher at 272 mln mt, 6 mln mt higher than 2018/19.
- Cary-out in major exporting countries (Argentina, Australia, Canada, EU, Kazakhstan, Russia, Ukraine and the US) is forecast to be slightly (1 mln mt) lower than last year at 69 mln mt.

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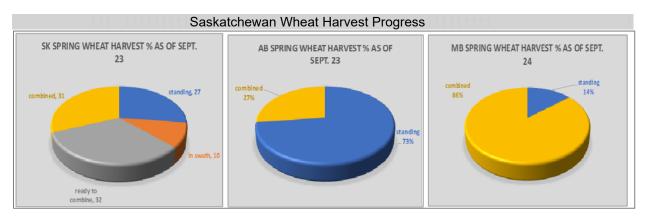
> Global wheat production and trade:

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:** Dec '19 contract **Chicago** winter wheat closed at 487-2, up 3-0 cents on Friday, up 3-0 cents for the week.
- Dec '19 contract **Kansas** hard red winter wheat closed at 407-4, down 0-6 cents in Friday's trade, unchanged for the week.
- **Minneapolis**, Dec '19 contract hard red spring wheat closed at 547-0, down 1-6 cents for the day, up 22-6 cents for the week. March '20 hard red spring wheat closed at 560-4, down 1-4 cents for the day, up 23-0 cents for the week.

Canadian Wheat:

• Canadian wheat harvest continues to be slow, and substantial snowfall fell from ID and MT, up into AB and SK this weekend. SAF reported SK spring wheat harvest is 31% complete as of Sept. 23rd (vs. a 67% 5-yr avg), with 32% ready to be combined, 10% sitting in swath, and 27% still standing. AB Ag reported their spring wheat harvest to be 27% complete. The MB spring wheat harvest is 86% complete (vs. a 94% 3-yr avg), and 14% is still standing. These numbers leave a substantial spring wheat acreage still exposed to the rain and snow.



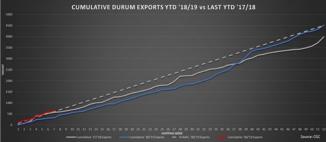
• Like HRS, durum harvest has been slow, and quality will be a major issue this year. In SK, just 48%

of the durum crop has been harvested while 85% of the AB crop is off.

 Canadian producers delivered 551.7k mt of wheat (excl. durum) into the Canadian grain handling system during week 7 of the 2019/20 marketing year. Exports during the week were 356.0k mt, for a YTD total of 2.176 mln mt, 356.4k mt (14%) less than this time last year.

• There was 142.8k worth of durum delivered into the grain handling system during week 7 of the marketing year. Exports during the week were 37.8k mt for a YTD total of 648.9 mt, double the amount exported this time last year. Aiding the strong earlyseason exports is the larger 2018/19 durum carry-out.





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US wheat:

• NASS estimates that 87% of the U.S. spring wheat crop has been harvested as of Sept. 23rd, well

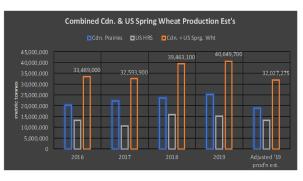
behind last year and the 5-year average. Harvest in Montana was able to progress 11% from last week to 80% complete, leaving 20% of their crop in the field. ND was able to make headway on another 12% over the week to 85%, leaving another 15% remaining. Farmers were already reporting last week that much of the remaining HRS wheat will struggle to meet even feed grades. Mta. has ~23% of US spring wheat acres, and N Dakota ~47%. We can extrapolate that ~2.4 mln



acres, or ~20% of total US HRS acres remain in serious jeopardy.

• The graph to the right combines Cdn. and US spring wheat production for the years 2016 to 2019

using the official StatsCan and USDA production estimates for 2016 to 2019. The right-hand set of columns attempts to put an estimate to the damage incurred by the spring wheat crop due to adverse conditions over the past month. It reduces the 2019 US spring wheat production by 15% and reduces Cdn. useable production by 25% in view of recent precipitation. This scenario would result in a combined spring wheat production of 32 mln mt, 8.6 mln mt (21%) smaller than the initial estimate, and 7.4 mln mt (19%) smaller than last year's N American spring wheat production.



- Durum harvest was able to progress 6% in Mta to 50% harvested and 23% in ND to 73%. Rain and now snow has ravaged the crop remaining to be harvested, most of which will not make milling grade.
- Winter wheat planting in the US is 22% complete, slightly below the 26% of last year and the 24% 5-year average.

Australian wheat:

- Australia's Bureau of Meteorology is forecasting another 3 months of hot and dry weather over the country's East coast wheat producing areas.
- Despite the dryness, Aussie Fob ended the week lower at \$240/mt because of increased farmer selling. Even with a smaller crop, Australia will have an exportable surplus (USDA is currenting estimating 11.7 mln mt) which will not be sold at current levels.

Argentine wheat:

- BAGE's chief analyst kept the Argentine wheat crop at a record 21 mln mt (a surprise), which is above the USDA's 20.5 mln mt.
- Gd/Ex ratings fell another 3points to 35% vs 40% last year. Just 17% of the crop is heading compared to 37% last year.
- Fob was largely unchanged with Dec 12.5 Pro being offered at \$187 mln mt. There is currently a \$2-3/month carry.



EU wheat:

- Rain fell across much of N Europe improving conditions for winter planting and germination.
- Another good week in the EU saw soft wheat exports rise by over 500k mt (including another 400k mt adjustment to the prior week), taking the season total to 5.65 mln mt, up 24% over last year. There were three Moroccan vessels in the French line-up and France also managed to sell one cargo to GASC (although it was \$2 higher than the cheapest Russian offer).
- French Fob for 11.5 pro ended the week at \$187, while German 11.5 pro was \$184 and Baltic 12.5 pro was \$184.

Black Sea wheat:

- Black Sea futures ended the week \$2-3 higher and are \$8 above the contract lows set 3 weeks ago. Russia has been seeing demand from both the interior and export markets, but there are reports that origination is becoming more difficult (esp. in the S where stocks are "low").
- The Russian Ag Min raised their estimates for the wheat crop by 3 mln mt to 78 mln (vs USDA's 73 mln mt) mt. This came as a large surprise to the trade.
- The Russian wheat harvest is said to have advanced to 70.2 mln mt as of Sept. 20th (63.9 mln mt lst yr.).
- Ukraine's Ag Min is reporting that YTD wheat exports are now 7.7 mln mt. The USDA is estimating that the country will export 19 mln mt of wheat in 2019/20, 21% higher than last year.
- Russian 11.5 pro finished the week at \$186 and is no longer the cheapest on a Fob basis, however freight spreads will continue to send demand towards the Black Sea until January.

Significant purchases/ trades:

- GASC bought 240,000 mt of Russian and 60,000 mt French wheat for 26 Oct-5 Nov at an average \$213.75.
- Jordan bought 60,000 mt FH Dec at \$221.
- Syria failed to barter its durum wheat for Russian milling.
- Brazil's 750,000 mt tariff-free non-Mercosur import quota should be in place by November.
- US inspections were 476,000 mt (season total 294 mln bu, up 21%), sales were 283,000 mt (season total 462 mln bu up 15%).

Wheat Market Outlook:

Significant events:

- The funds were active buyers of Minneapolis wheat as as rain plagued the Northern Plains and Canadian Prairies. Quality is a growing issue and farmers and analysts alike believe that much of durum and spring wheat remaining to be harvested will be feed grade at best.
- Crop quality concerns increased HRS export basis out of the Pacific Northwest (PNW), Gulf and Great Lakes for all delivery periods. Minimal farmer selling offset low export demand and held PNW and Gulf HRW export basis steady week-over week for October and November deliveries.
- On September 26, Australia's Bureau of Meteorology (BOM) announced that Australia's east coast wheat production region could experience another three months of hot, dry weather. USDA currently expects Australian wheat exports will total 10,5 myn tonnes, up 14% from last year, if realized, but 33% below the 5-year average of 15.6 myn tonnes.

Weather around the world:

Temperatures in the USA remained above normal except in the far north-west. Widespread rain fell over the Midwest and Northern Plains. Canada was cold and wet. Europe was warm with most rain kept in the north and Balkans. Argentina was almost entirely dry with warming temperatures adding to the drying process. Brazil's outlook turned slightly wetter. South Africa was mostly dry. There was no let-up to the dryness across most of Australia.



> Outlook:

Quality issues are starting to make the Funds very nervous regarding their short in futures. They have started to cover in Minneapolis but will need to look at Kansas next. Reports are that Southern Hemisphere crops are suffering, and yields are declining. North American spring wheat and durum crops have major quality issues, and EU/Black Sea farmers are not selling. There is nothing ragingly bullish yet, but there are warning flags for millers. The wheat lows are in.

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		ADM CI-	Deferred		
	(bu.)	(mt)	NW Sask	Nov. '19 (bu.)	Nov. '19 (mt.)	
1 CWRS 13.5	\$6.29	\$231.12	1 CWRS 13.5	\$6.31	\$231.85	
1 CWAD 13.0	\$7.02	\$257.94	1 CWAD 13.0	\$7.02	\$257.94	
1 CPSR 11.5	\$4.97	\$182.62	1 CPSR 11.5	\$5.00	\$183.72	
SW Sask			SW Sask			
1 CWRS 13.5	\$6.23	\$228.92	1 CWRS 13.5	\$6.17	\$226.71	
1 CWAD 13.0	\$6.98	\$256.47	1 CWAD 13.0	\$6.99	\$256.84	
1 CPSR 11.5	\$4.71	\$173.06	1 CPSR 11.5	\$4.95	\$181.88	
NE Sask			NE Sask			
1 CWRS 13.5	\$6.03	\$221.57	1 CWRS 13.5	\$6.04	\$221.93	
1 CWAD 13.0	\$7.22	\$265.29	1 CWAD 13.0	\$7.21	\$264.92	
1 CPSR 11.5	\$4.72	\$173.43	1 CPSR 11.5	\$4.75	\$174.53	
SE Sask			SE Sask			
1 CWRS 13.5	\$6.08	\$223.40	1 CWRS 13.5	\$6.06	\$222.67	
1 CWAD 13.0	\$7.21	\$264.92	1 CWAD 13.0	\$7.21	\$264.92	
1 CPSR 11.5	\$4.67	\$171.59	1 CPSR 11.5	\$4.76	\$174.90	

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	(0.10)	-3.67	
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	(0.10)	-3.67	
2 CWAD 12.5	(0.20)	-7.35	



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)

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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."



- 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 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.

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

Relevear	nt FOB Prices and	Export Basis		September 30, 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	\$332.93	\$326.13			
HRS	\$325.64				
HRW 11.5	\$283.36				
SWW 12.0	\$295.99				
1 CWRS 13.5 ³	\$332.93		\$228.18	\$104.75	
2 CWRS 13.0 ³	\$325.64		\$211.65	\$114.00	
3 CWRS ³	\$283.36		\$182.25	\$101.11	
CPS ³	\$289.19		\$178.21	\$110.98	
1 CWAD ⁴		\$307.66	\$0.00	\$307.66	
Competing wheat:	US\$/mt				
Russia 12.5 (Black Sea, 25k mt)	\$186.00				
French 11.5 (Rouen)	\$187.00				
APW 10.5 (W Coast)	\$240.00				
Argentine 12.0 (Nov)	\$177.00				

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 I					September 30,
Canadian Funds			Grade		
PNW value/Vancouver	1CWRS13.5	2CWRS	3CWRS	Winter wht.	CPS
May/June delivery	\$8.88	\$8.68	\$7.53	\$7.87	\$7.87
Parity Track Rosetown	\$7.38	\$7.18	\$6.03	\$6.37	\$6.37
Track Bid Rosetown Area	\$6.21	\$5.76	\$4.96	\$4.85	\$4.85
Gross Margin at Elevator (\$/bu)*	\$1.17	\$1.42	\$1.07	\$1.52	\$1.52
Gross Margin at Elevator (\$/mt)*	\$42.96	\$52.21	\$39.32	\$56.00	\$56.00
to cover elevation, elevator market risk, margin					