

Wheat Market Outlook and Price Report: September 16, 2019

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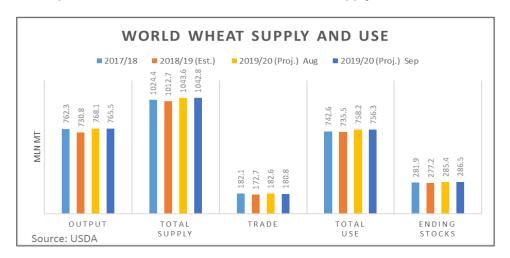
i) Background and Rationale for the Report

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 16, 2019

USDA/WASDE September 12/'19 Estimates for World Wheat Supply and Use



- The USDA/WASDE report was largely seen as neutral as changes made in the wheat market were largely as expected.
- Global wheat, production was reduced by 2.5 mln mt, but remains 35 mln mt higher than last year at 1042.8 mln mt. Production in India and the EU was both seen 1 mln mt higher while production in Russia, Ukraine and Kazakhstan was a combined 2.5 mln mt lower.
- Demand was lowered by 2 mln mt to 756.3 mln mt. This remains 20 mln mt above last year.
- Trade was seen 1.8 mln mt lower at 180.8 mln mt (172.7 mln mt last year). Canadian '19/20 wheat exports were increased by 500k mt due to the higher carry-in as given by StatsCan.
- Adding to 2019/20 supply was a 1.75 mln mt increase in old crop ending stocks to 277.2 mln mt. Higher supply and lower demand saw a 1.11 mln mt increase in world 2019/20 ending stocks to 286.5 mln mt.
- The US wheat balance sheet was left unchanged. Corn numbers were somewhat bullish, but not enough to have a significant impact on wheat markets.



> 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 483-4, down 0-2 cents on Friday, up 19-6 cents for the week.

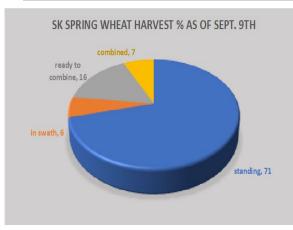
Dec '19 contract **Kansas** hard red winter wheat closed at 399-3, down 3-4 cents in Friday's trade, up 6-4 cents for the week.

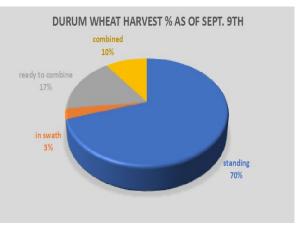
Minneapolis, Dec '19 contract hard red spring wheat closed at 505-4, down 1-6 cents for the day, up 11-2 cents for the week. March '20 hard red spring wheat closed at 520-4, down 1-4 cents for the day, up 11-4 cents for the week.

Canadian Wheat:

• Harvest progress across the Prairies is becoming more and more of a serious issue. SAF reported that only 7% of spring wheat had been combined as of Sept. 9th, compared to a 39.2% 5-year average progress. Similarly, the SK durum harvest showed 10% progress, compared to the 5-year average of 51.2%. The latest report from AB showed 10.2% of AB spring wheat harvested as of Sept. 10th. In Manitoba, 67% of spring wheat were harvested as of Sept. 10th, compared to an 81% average harvest progress at that time. Wet conditions last week will cause quality problems and downgrades to the crops still out in the fields.

Saskatchewan Wheat Harvest Progress





• Indicative of a year with slow harvest progress, Canadian Wheat movement has been sluggish to start the marketing year. Canadian producers delivered 237.8k mt of wheat (excl. durum) into the Canadian grain handling system during week 5 of the 2019/20 marketing year. Exports during the

week were 391k mt, for a YTD total of 1.628 mln mt, 50.7k mt less than the same time last year. Weekly exports will need to average 326k mt to reach the AAFC's 19.2 mln mt projection.

(CGC) Grain Handling Summary Wheat (excl. Durum) Week 5 (to Sept 8/19)					
('000 mt)	Producer	Terminal		Domestic	
	Deliveries	Receipts	Exports	Dissappearnace	
Current Week	237.8	344.9	391	40.2	
Week Ago	223.7	348.4	218	46	
YTD	1316.9	1895.4	1628.8	348.9	
Last YTD	2045.2	2291.7	1679.5	344.5	
YTD less Last YTD (k mt)	-728.3	-396.3	-50.7	1.4	
YTD over Last YTD (%)	-36%	-17%	-3%	1 %	
Based on weekly CGC Handling Data					



• Canadian producers delivered 69.3k of durum into the grain handling system during week 5 of the

marketing year. Exports during the week were 121k mt for a YTD total of 495.5k mt, up 80% (220.7k mt) from last year.

StatsCan & AAFC issued their 'model-based' crop production numbers last week. According to this new estimate, total Cdn. wheat production will increase to 32.5 mln mt this year. Spring wheat production is expected to rise to 25.8 mln



mt, and durum wheat is expected at 5 mln mt. Spring wheat yield was pegged at 51.2 bu/acre, compared to a 50 bu/ac estimate in the Aug. 28 report, and a 42 bu ac estimate for SK spring wheat in tdy's SAF update.) Rather than come up with different numbers for the same thing, it would be much more useful to come up with one solid number.

STatsCan Aug. 28/'1 STatsCan Aug. 28/'19 & Sept. 12/'19 - Production (mt)				2017 to 2018					
					Aug. 2019			Sept. 2019 Model	
	2015	2016	2017	2018	est.	5 yr. avg. prod'n	% change	based	Diff. to Prev. Est.
Wheat, all	27,647,400	32,139,900	30,377,200r	32,201,100	31,251,200	24,647,920	97.1%	32,491,000	104.0%
Wheat, durum	5,388,700	7,761,800	4,962,200	5,744,800	4,419,500	5,655,400	76.9%	4,998,000	113.1%
Wheat, spring	19,962,300	20,705,200	22,559,735r	23,942,400	25,108,000	17,943,580	104.9%	25,752,000	102.6%
Wheat, winter rema	2,296,400	3,672,900	2,855,300	2,513,900	1,724,600	2,612,620	68.6%	1,741,000	101.0%

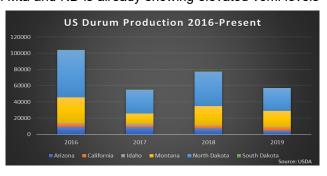
US wheat:

 There were no changes to the US balance sheet in the latest USDA report as new crop ending stocks were unchanged at 1.014 bln bu. There were off-setting export revisions within wheat classes (HRW -10 mln bu, HRS +5 mln bu, SRW +5 mln bu) leaving the overall US wheat export number unchanged (despite exports running 23% above last year vs the USDA's projected 4% increase).

• The NASS Crop Progress report showed the US spring wheat crop is 71% harvested as of Sept. 8, with the normal pace at 87% harvested. Condition ratings are not reported after 50% of the crop has been harvested. The wet conditions in the N US have already caused harvest delays and quality problems. Spring wheat harvested in Mta and ND is already showing elevated vomi levels

and sprouting. Montana had 62% (5-yr avg. 86%) of spring wheat harvested as of Sept. 8th while ND showed 68% (5 yr avg 83%) of spring wheat harvested.

 US durum numbers were unchanged in last week's USDA report. Thus, production in the US is still projected to fall by 26% (20 mln mt) from last year. The largest decrease will be in ND where, despite higher yields y/y, they will see a 32% decrease in production.



Australian wheat:

- ABARES in Australia trimmed its wheat production forecast for the '19/20 season by nearly 10% to 19.2 mln mt due to prolonged dry weather across the country's east coast. Their previous June estimate was at 21.9 mln mt.
- USDA lowered Aussie wheat production by 2 mln mt to 19 mln mt.

Argentine wheat:

 There is concern that Argentina's wheat crop could be damaged by dryness in Cordoba, La Pampa, and in W Buenos Aires province, if rains do not appear over the weeks ahead in time for key



development stages. BAGE warned that if rain does not soon fall in the affected areas, crop loss would speed up.

The USDA left Argentine wheat production unchanged at 20.5 mln mt.

EU wheat:

- The French Ag Ministry estimates the French soft wheat crop at 39.5 mln mt, up from last month's estimate of 38.2 mln mt. If true, this would be France's 2nd largest wheat crop ever.
- USDA's wheat production number for the EU was raised 1 mln mt to 151 mln mt.

Black Sea wheat:

- USDA lowered Russian and Ukrainian production by 500k mt each, but export estimates were left unchanged. Meanwhile the Kazakhstan stop was lowered 1.5 mln mt, with a 1.3 mln mt decrease in exports.
- The Black Sea market continues to be heavy as there is ample supply and demand continues to be slow. Exports from Russian ports are 31.5% behind where they were at the same time a year ago. Despite that, Black Sea wheat overall is seeing significant export opportunities. Officials from Russia and Kazakhstan are expecting export opportunity to China to open up soon. Despite a 1.5 MMT reduction in Kazakhstan's wheat harvest, its President says they expect to triple their wheat exports to neighboring China. Saudi Arabia opened its wheat tenders to offers from the Black Sea this week. Some traders estimated that wheat from the Black Sea would make up as much as 60 percent of the tender.

Significant purchases/ trades:

- Saudi bought 780,000 tonnes 12.5 pro Oct-Jan arrival at \$215.50 basis Jeddah; Jordan bought 60,000 tonnes LH Nov at \$218.50, Turkey bought 88,000 tonnes durum at around \$289. Thailand bought 70,000 tonnes Dec feed wheat at \$220.50 Liner Out.
- US inspections were 402,000 tonnes (season total 257 mln bu up 23%), sales were 611,000 tonnes taking the season total to 441 mln bu, also up 23% on last year's 358 mln bu.

Wheat Market Outlook:

Significant events:

- USA wheat was up 5-7¢ per bushel ahead of the USDA report with support coming from ABARES' lower crop number, dryness in Argentina, shipments and sales staying ahead of last year, and a USA spring wheat harvest just 71% complete against 92% last year and 87% average.
- There is also a strong prospect of a poor Canadian crop if rain continues.
- Futures rose further following the USDA report, but this was more about strength in beans than anything bullish in the wheat numbers.

• Weather around the world:

O USA: Near normal precipitation and above average temperatures are expected for the coming week with no frost/freeze threat into the 1st week of October. Canada; Many parts remain too wet to harvest and this is becoming both a quality and quantity concern. Durum in particular could be a real problem. South America: The forecast remains almost entirely dry for Brazil and Argentina, with Brazilian temperatures much above normal except in the far south. Europe: The continent remains predominantly dry with temperatures still above normal but turning cooler in the east. Australia: Friday's wetter forecast for the east is being maintained in current maps, but weekend precipitation was very limit

> Outlook:

There was little in the WASDE report that was bullish (except for soybeans). At least the USDA did reduce their estimate of the corn yield, however, it remains much higher than the various trade estimates. Increased



supplies in the EU means we need further evidence of more wheat being used for feed to expect any substantial rally. That is why the real corn supply is very important. In the meantime, we don't see wheat rallying much in the short term, but demand indicators are more positive for quality wheat. Canadian durum prices have spiked considerably.

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		NIMA CI-	Deferred		
	(bu.)	(mt)	NW Sask	Nov. '19 (bu.)	Nov. '19 (mt.)	
1 CWRS 13.5	\$5.75	\$211.28	1 CWRS 13.5	\$5.78	\$212.38	
1 CWAD 13.0	\$6.48	\$238.10	1 CWAD 13.0	\$6.48	\$238.10	
1 CPSR 11.5	\$4.80	\$176.37	1 CPSR 11.5	\$4.83	\$177.47	
SW Sask			SW Sask			
1 CWRS 13.5	\$5.67	\$208.34	1 CWRS 13.5	\$5.65	\$207.60	
1 CWAD 13.0	\$6.53	\$239.94	1 CWAD 13.0	\$6.53	\$239.94	
1 CPSR 11.5	\$4.53	\$166.45	1 CPSR 11.5	\$4.76	\$174.90	
NE Sask			NE Sask			
1 CWRS 13.5	\$5.50	\$202.09	1 CWRS 13.5	\$5.53	\$203.19	
1 CWAD 13.0	\$6.75	\$248.02	1 CWAD 13.0	\$6.73	\$247.29	
1 CPSR 11.5	\$4.58	\$168.29	1 CPSR 11.5	\$4.61	\$169.39	
SE Sask			SE Sask			
1 CWRS 13.5	\$5.52	\$202.83	1 CWRS 13.5	\$5.52	\$202.83	
1 CWAD 13.0	\$6.78	\$249.12	1 CWAD 13.0	\$6.77	\$248.76	
1 CPSR 11.5	\$4.52	\$166.08	1 CPSR 11.5	\$4.61	\$169.39	

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	(0.10)	-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

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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."



- o 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 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

Relevear	nt FOB Prices and I	Export Basis		September 16, 2019	
	FOB Prices CD/	A¹ (calculated)	Street Prices	Export Basis ²	
	West Coast	Great Lakes	Rosetown	Basis: West Coast-Centr. SK	
	(Cdn./mt\$)	(Cdn.\$/mt)	(Cdn.\$/mt)	(Cdn\$/mt)	
Type of Wheat					
DNS 14.0	\$299.44	\$283.88			
HRS	\$292.14				
HRW 11.5	\$268.33				
SWW 12.0	\$291.17				
1 CWRS 13.5 ³	\$299.44		\$206.13	\$93.30	
2 CWRS 13.0 ³	\$292.14		\$195.11	\$97.03	
3 CWRS ³	\$268.33		\$169.02	\$99.30	
CPS ³	\$284.37		\$172.70	\$111.67	
1 CWAD ⁴		\$307.70	\$0.00	\$307.70	
Competing wheat:	US\$/mt				
Russia 12.5 (Black Sea, 25k mt)	\$185.00				
French 11.5 (Rouen)	\$185.20				
APW 10.5 (W Coast)	\$240	0.00			
Argentine 12.0 (Nov)	\$177	7.00			

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	Parities				September 16, 2019
Canadian Funds			Grade		
PNW value/Vancouver	1CWRS13.5	2CWRS	3CWRS	Winter wht.	CPS
May/June delivery	\$7.96	\$7.77	\$7.12	\$7.74	\$7.74
Parity Track Rosetown	\$6.47	\$6.27	\$5.62	\$6.24	\$6.24
Track Bid Rosetown Area	\$5.61	\$5.31	\$4.60	\$4.70	\$4.70
Gross Margin at Elevator (\$/bu)*	\$0.86	\$0.96	\$1.02	\$1.54	\$1.54
Gross Margin at Elevator (\$/mt)*	\$31.51	\$35.24	\$37.51	\$56.68	\$56.68
* to cover elevation, elevator market risk, margin					