

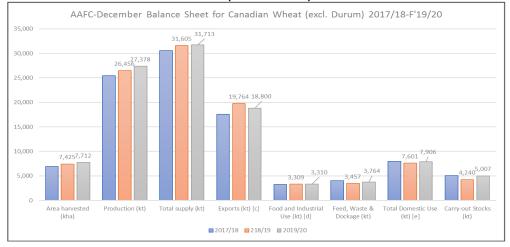
Wheat Market Outlook and Price Report: December 23, 2019 By Marlene Boersch/ A.P. Temple Mercantile Consulting Venture Inc.

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 Dec 20, 2019



AAFC December Outlook for Canadian Wheat (excl. Durum)

- In their Outlook on Friday, AAFC lowered Canadian 2019/20 wheat production 120k mt from their September estimate to 27.4 mln mt (up 3.5% from last year) as the 7.5% increase in seeded area was partially offset by lower yields and higher abandonment.
- AAFC used CGC's numbers for quality which put 74% of the crop as a No. 1 or 2 grade. This is the same percentage as last year and higher than the 5-year average. As we discussed last week, we think that the quality of the Canadian crop is being overstated.
- Canadian exports were decreased 200k mt from Sept. to 18.8 mln mt, down 5% from last year (we have been using 18.7 mln mt). Canadian exports are 12% behind last year's pace.
- Overall, **carry-out socks were essentially unchanged at 5 mln mt**, up 18% from last year but just 2% more than the 5-year average. Our carry-out estimate is similar to AAFC's as our 100k mt lower exports is being largely offset by higher animal feed use. The larger than normal supply of feed wheat in Canada has it being competitive with barley in feed 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:** Mar '20 contract **Chicago** winter wheat closed at 542-2, down 3-0 cents for the day, *up* 9-6 cents for the week.

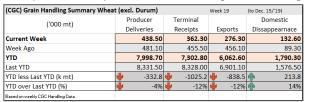
Mar '20 contract **Kansas** hard red winter wheat closed at 462-2, up 1-6 cents for the day, up 19-4 cents for the week.

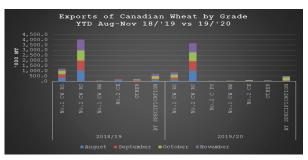
In **Minneapolis**, Mar '20 contract hard red spring wheat closed at 536-6, down 4-4 cents for the day, *up 11-0 cents for the week*, while May '20 hard red spring wheat closed at 545-2, down 4-0 cents for the day, *up 11-2 cents for the week*.

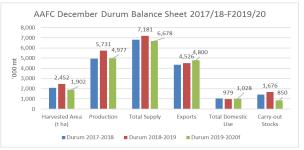
• Canadian Wheat:

Canadian producers delivered 438.50k mt of wheat (excl. durum) into the Canadian grain handling

- system during week 19 of the 2019/20 marketing year. Exports during the week were poor at 276.30k mt for a YTD total of 6.062 mln mt, 838.5k mt (12%) less than this time last year. To reach AAFC's new export target of 18.8 mln mt, weekly exports will have to average 386k mt.
- We said last week that exporters were going to have to be more creative in finding markets for Canadian wheat this year given the variable quality of the crop. According to the CGC, this has not happened yet YTD Aug-Nov as 89% of the exported Canadian wheat (excl. durum) this year has been a No. 1 or 2 grade, vs 85% last year.
- AAFC decreased <u>durum</u> harvested area 27k ha to 1.902 mln ha. Partially offsetting this decrease was an increase in average yield from 2.59 t/ha to 2.62 t/ha. Thus, production was seen just 19k mt lower at 4.977 mln mt.
- Beginning stocks were seen 7k mt lower causing total supply to fall 26k mt from the previous estimate to 6.678 mln mt, down from last year's 7.181 mln mt.
- Durum exports were seen 100k mt higher to meet Stats Canada's estimate of 4.8 mln mt, 6% more than last year (the current export pace is 56% ahead of last year).
- Animal feed was put 29 mln mt higher from last month at 1.028 mln mt.
- Overall, 2019/20 durum ending stocks are just over half of last year's at 850k mt.
- Canadian producers delivered 103.7k of durum into the grain handling system during week 19 of the marketing year. Exports throughout the week were 79.4k mt for a YTD total of 1.87 mln mt 56% (672.8k mt) more than this time last year. To reach AAEC's activ









than this time last year. To reach AAFC's estimate, weekly exports need to average 89k mt.

• Given the wheat values that have traded internationally in recent weeks, Canada should be doing more wheat business, particularly in durum and lower grade wheat.



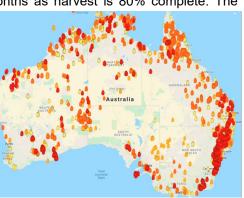
- Durum was traded for values that reflect ~US\$280/mt parity Thunder B4ay. Accounting for the exchange rate and backing off 112 car rail freight rates and actual handling expenditures calculates to C\$324.19/mt (\$8.81/bu) at the elevators in central SK. The current posted bid is \$8.00, for a generous \$26.76/mt margin after costs.
- Meanwhile, feed wheat prices that traded in recent weeks make Canadian country elevator prices look ridiculous. Traded values to the Philippines and Korea were \$239.00/mt. These prices reflect about C\$292.00/C\$7.94 per bushel FOB Vancouver which backs off to \$6.50/bu at the elevator in Central SK. Compared with the current bid of \$5.40 gives a huge \$1.10/bu (\$40.42/mt) margin.
- Canadian basis levels continue to lag US levels, while the continued firming of Minneapolis futures have allowed grain elevators to increase offered prices without improving basis. World values continue to trade at levels that provide Cdn. elevators lots of room for basis improvement. We think this will happen in the New Year. We would be 40-50% sold at \$7.00 or better for No. 2 13.5 pro CWRS.

• US wheat:

- US wheat futures rallied week-over-week on a perfect storm of optimism about US-China trade, export taxes in Argentina, the struggling EU and Black Sea winter crops and possible further loss to winter wheat in the US Plains.
- Increased farmer selling and cheaper rail rates pressure HRS and HRW basis in the PNW and Gulf. Diminishing supplies of SRW kept its basis steady from last week.
- Weekly US export sales were a season high at 868,560 vs trade's expectations of 200-600k mt, just under 32% of this was HRS. Total YTD wheat sales are now 655 mln bu, up 7% from last year (vs USDA's 4% increase).
- Informa put US 2020 all wheat area at 44.3 mln acres, over 800k acres less than in 2019 (the lowest number in 110 years).
- The Dec. 17 Drought Monitor reported abnormal dryness and moderate drought in major HRW producing regions in north central Texas, the eastern region of the Texas panhandle, western Oklahoma, central and western Kansas and southeastern Colorado. Abnormal dryness was also introduced to south central Nebraska. Most soft white wheat growing regions in northeastern Oregon, southeastern Washington and northwestern Idaho are abnormally dry or moderately drought-stricken.

• Australian wheat:

- Aussie futures make their highest weekly close in 3-months as harvest is 80% complete. The
- drought has caused protein levels to be high but has hurt bushel weight and screenings. Rather than selling, Aussie farmers are keeping wheat for feed.
- It is unclear how much harvest (if any) progress will be made this week as farmers will likely return to fighting fires this holiday season. Over 200 fires are burning across the country (see map).
- Most private crop estimates remain around 15 mln mt vs USDA's 16.1 mln and ABARES 15.9 mln mt estimates.
- Aussie Fob values continue to become more and more expensive, now \$250.00/mt.



• Argentine wheat:

• When Argentina's new government gained power, they immediately increase export taxes on wheat from 7% - 12% and started a bill to increase the tax further to 15%. The bill passed the lower house and is now in the Senate. The expert tax effectively results in net negative returns to grow wheat on rented land (60% of the country's crop land is rented).



- At a time when Argentine new crop should be flooding the market, export licenses in Argentina have been halted until the new tax is in place.
- Wheat harvest in Argentina is 78% complete, up 17% from last week.
- Just 1% of the country's crop is said to be in good condition while 73% of the crop is in poor/very poor condition (18% last year).
- Argentine domestic activity was non-excitant, but Fob values nominally rose \$5 from last week to \$200-\$205.00/mt.

• EU wheat:

- By the end of November, only 60% of the UK's winter wheat for harvest in 2020/21 was planted due to overly wet planting conditions. Spring wheat planted area is expected to increase in 2020 to compensate for winter planting losses, but AHDB expects total wheat planted area for harvest in 2020/21 to fall 9% year-over-year to 1.65 million hectares (4.08 million acres).
- UK millers usually buy German wheat in the spring to blend with domestic supplies. However, UK millers have already started buying cargoes of German wheat for delivery in 2020 on the worry that next year's domestic crop will fall short.
- German winter wheat planted area for harvest in 2020 fell 7% from last year's planted area to 2.83 million hectares (6.99 million acres). Instead, German farmers increased winter rapeseed planted area by 12% over last year to 952,000 hectares (2.35 million acres) on stronger marketing conditions for the winter oilseed.
- Because of the decrease in production and strong EU demand, German non-EU exports for the 2020/21 year are forecast to fall 16% year-over-year.
- Last week, France's farm ministry decreased their '20/21 wheat area 5% to 4.73 mln ha 5.6% below the past 5-year average.
- The French rail strike is on going and is causing logistical nightmares for shippers.
- MARS again highlighted the vulnerability of the EU winter crop as the unseasonably warm temperatures has much of the winter crop exposed to frost/freeze because of the lack of hardening and snow cover.
- Fob values in the EU were again stronger week-over-week with French 11.5 pro bid at \$211.96 (+\$3.03 from last week), German 12.5 pro bid at \$214.58 (+\$2.46) and Baltic 12.5 pro was bid at \$214.58 (+\$2.46)/mt.

• Black Sea wheat:

- Like in the EU, the historic warmth has much of the FSU winter crop without snow cover and exposed to frost/freeze. Warm weather will continue, but then in week 2 of the forecast turns much colder.
- APK-Inform predicted Ukrainian winter wheat planted area for harvest in 2020 fell 10% on the year due to extremely dry autumn weather. The area that produces more than 95% of Ukrainian winter wheat fell to 5.93 million hectares (14.6 million acres) from last year's 6.64 million hectares (16.4 million acres). The consultancy says half of the country's winter wheat that was planted is in good condition
- Russia's AgMin is looking for new ways to restrict exports (if needed), saying exporters cannot be allowed to export everything and leave the domestic market short of grain. According to Russian sources, wheat stocks are at the lowest level since 2015.
- Black Sea values were stronger again this week with Russian 12.5 pro up \$4.00 at \$218.00 while Ukrainian feed wheat was \$2.00 higher than last week at \$206.00/mt.

Significant purchases/ trades:

- Markets are sliding into the holiday mode.
- The **Philippines** bought 40,000 mt of ASW at \$280 Jan-Feb.
- There were no results on either the **Ethiopian** or **Syrian** tenders.
- USA inspections were 506,000 mt (season total 499 mln bu up 16%), sales were 869,000 mt (season total 655 mln bu, *up* 7%).



- EU shipments for the year to date increased by 850,000 mt for a soft wheat total 12.8 mln mt, up 60% on last year.
- Canadian year to date shipments were 6 mln mt down 12%.
- Wheat Market Outlook:

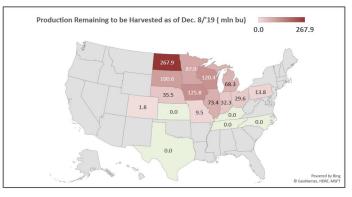
Significant events:

- All wheat futures rallied week-over-week on the news of a phase-one trade deal with China. new wheat export taxes in Argentina and technical buying. Soft red winter (SRW) futures gained 10 cents to close at \$5.42/bu. Hard red winter (HRW) futured gained 19 cents to end at \$4.62/bu. Hard red spring (HRS) futures rallied 11 cents to close at \$5.37/bu.
- **Increased farmer selling** following this week's futures rally and cheaper rail rates pressured Pacific Northwest (PNW) HRS and HRW export basis and Gulf HRS export basis for January and February deliveries. Tight, diminishing exportable supplies and steady demand kept SRW export basis steady and high week-over-week. The Great Lakes -St. Lawrence Seaway System will close for the season on December 31, 2019 and will re-open in March 2020.
- US-China trade deal: The market is struggling to understand how it would even be possible for • China to buy \$40 bln worth of US Ag products. China bought \$22.5 bln worth of Ag products from the US in 2017; they would have to import \$17.5 bln more than this to reach the rumoured \$40 bln worth of ag goods. Even when you combine the record amount imports of all classes of Ag goods imported in any single year (eg. \$15.4 bln of soybeans in 2012 + \$1.2 bln of wheat in 2013 + etc.) it still only amounts to \$29.4 bln worth of Ag products. However, it seems to us the one thing that that the Chinese could buy



more of that has a market effect is USA corn. Although a small portion, wheat sales could also benefit in a large way, with some saying China could import 3 mln mt of wheat.

Given the NASS by-state progress numbers and the USDA's latest production projections, there is over 1 bln bu worth of corn remaining to be harvested in the **US** (as of Dec. 8th). There has been limited harvest progress this month, because of the cold temperatures and many elevators halting deliveries of wet corn. Warmer temperatures allowed for some progress last week, but unless producers have contracted grain, the thought is that most of the crop remaining will not be harvested until spring. The USDA needs to decrease corn production estimates



- in their January report, and we still think that feed use is too low.
- Weather Around the World:
 - The USA was warm and mostly dry leaving Plains soil moisture in decline. Precipitation 0 continued in most of Western Europe, but Germany, Poland and the Black Sea were dry. Temperatures remained much above normal everywhere with no snow cover. Argentina was mostly dry, and Australia remained completely dry with extreme heat.



> Outlook:

Current crop issues in the Northern Hemisphere need to be watched. Western Europe continues to be too wet, while the USA and Black Sea are too dry. Week two of the FSU forecast shows a major drop in temperatures with no snow cover. Australia won't get any better, and Argentina could be an unknown for a few weeks. French logistics are not improving, the Baltics have little left to sell, farmers everywhere are on holiday and China just possibly sits in the background.

Prices should continue to be supported over the Holiday season. We would be 40-50% sold at \$7.00 or better for 13.5 pro No. 2 CWRS.

iii) Primary Elevator Price Tables and Grade Spreads

NW Sask	Spot		NW Sask	Deferred		
	(bu.)	(mt)	IVVV Jask	Feb. '20 (bu.)	Feb. '20 (mt.)	
1 CWRS 13.5	\$6.13	\$225.24	1 CWRS 13.5	\$6.31	\$231.85	
1 CWAD 13.0	\$7.17	\$263.45	1 CWAD 13.0	\$7.22	\$265.29	
1 CPSR 11.5	\$5.51	\$202.46	1 CPSR 11.5	\$5.57	\$204.66	
SW Sask			SW Sask			
1 CWRS 13.5	\$6.12	\$224.87	1 CWRS 13.5	\$6.18	\$227.08	
1 CWAD 13.0	\$7.15	\$262.72	1 CWAD 13.0	\$7.22	\$265.29	
1 CPSR 11.5	\$5.26	\$193.27	1 CPSR 11.5	\$5.50	\$202.09	
NE Sask			NE Sask			
1 CWRS 13.5	\$5.91	\$217.16	1 CWRS 13.5	\$6.08	\$223.40	
1 CWAD 13.0	\$7.48	\$274.85	1 CWAD 13.0	\$7.57	\$278.15	
1 CPSR 11.5	\$5.25	\$192.91	1 CPSR 11.5	\$5.29	\$194.38	
SE Sask			SE Sask			
1 CWRS 13.5	\$5.99	\$220.10	1 CWRS 13.5	\$6.11	\$224.51	
1 CWAD 13.0	\$7.49	\$275.21	1 CWAD 13.0	\$7.57	\$278.15	
1 CPSR 11.5	\$5.19	\$190.70	1 CPSR 11.5	\$5.28	\$194.01	

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

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	(0.25)	-9.19	
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:
 - 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
 - o HRW in the Pacific North West (PNW) ≈ 3 CWRS in Vancouver
 - \circ SW (lowest price wheat) ≈ CPS red (mostly fed domestically)
 - \circ HAD (Lakes) ≈ CWAD (Thunder Bay/ Lawrence)

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."



- 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	December 23, 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	\$348.77	#VALUE!			
HRS	\$342.78				
HRW 11.5	\$304.81				
SWW 12.0	\$299.01				
1 CWRS 13.5 ³	\$348.77		\$224.14	\$124.63	
2 CWRS 13.0 ³	\$342.78		\$200.25	\$142.53	
3 CWRS ³	\$304.81		\$161.67	\$143.14	
CPS ³	\$292.25		\$198.42	\$93.83	
1 CWAD ⁴		#VALUE!	\$293.95	#VALUE!	
Competing wheat:	US\$/mt				
Russia 12.5 (Black Sea, 25k mt)	\$218.00				
French 11.5 (Rouen)	\$211.93				
APW 10.5 (W Coast)	\$250.00				
Argentine 12.5	\$200-205.00				

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

*Note: The Great Lakes are closed, thus no bids posted were #VALUE is shown. *



ADDENDUM

Futures Driven Basis Calculation, Canadian Dollars per MT

Canadian Wheat - World Price P	Parities				December 23, 20
Canadian Funds			Grade		
PNW value/Vancouver	1CWRS13.5	2CWRS	3CWRS	Winter wht.	CPS
May/June delivery	\$9.31	\$9.14	\$8.11	\$7.95	\$7.95
Parity Track Rosetown	\$7.81	\$7.65	\$6.62	\$6.46	\$6.46
Track Bid Rosetown Area	\$6.10	\$5.45	\$4.40	\$5.40	\$5.40
Gross Margin at Elevator (\$/bu)*	\$1.71	\$2.20	\$2.22	\$1.06	\$1.06
Gross Margin at Elevator (\$/mt)*	\$62.88	\$80.78	\$81.39	\$38.85	\$38.85
to cover elevation, elevator market risk, margin					