Wheat Market Outlook and Price Report: July 24th, 2017

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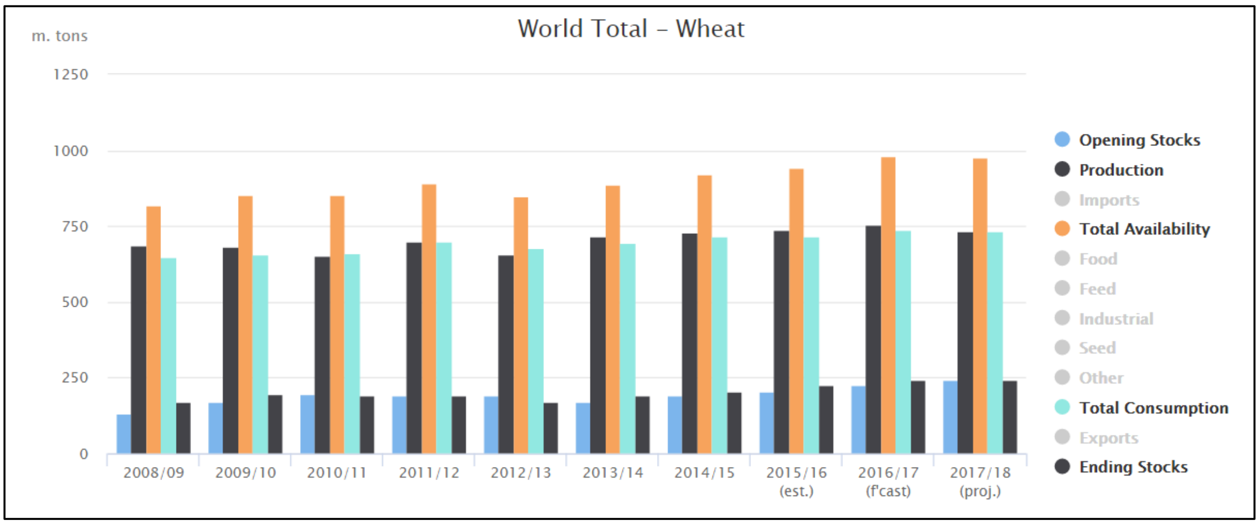
i) Background and Rationale for the Report

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 July. 14/'17

2017/'18 World Wheat Overview:



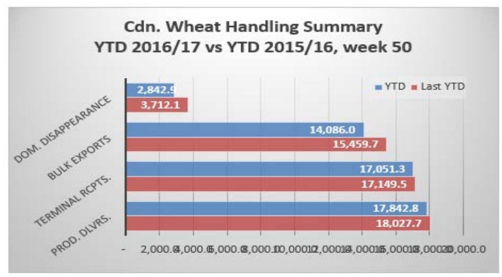
- While recent market rallying has been focused around an apparent shortage of quality wheat, world wheat production still remains adequate according to all estimates, with excellent crops reported in northern Europe, Russia, and the middle east. The above production estimates for 2017/2018 will be adjusted lower to reflect yield reductions in north America and Australia, but the overall balance sheet still remains positive.
- Modern milling technology also allows for lower grades of wheat to be blended upward and requires a lower percentage of high grade/high protein wheat vs years past. Given that a percentage of spring wheat is typically used for livestock feed, and that there will still be a significant carryout of HRS even with the drought considered, spreads between HRS and other classes remain too wide.

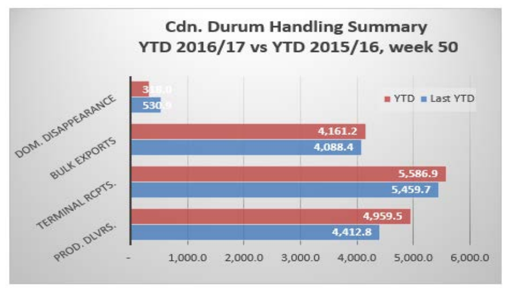
- **Global wheat production and trade:**
  Below is a brief synopsis on this week's market events in the major wheat origins.

  - **Futures:** Chicago September wheat closed down 6.4 cents in Fridays trade and was down by 11.4 cents for the week, while Minneapolis, September Hard Red Spring wheat closed down by 12.2 cents on Fridays, but up by 7.6 cents for the week.

  - **Funds:** Index Funds sold 550k mt of wheat; they are long 25.9 million mt wheat. (They did buy 3 million mt of corn and soybeans). Specs and Speculative Funds sold 1.3 million m of wheat during the week, for a net wheat long of 6.8 million mt.
  - **Matif:** Matif exchange in Europe closed at 170.5 euros per metric tonne which was up by 0.25 euros on Fridays trade and down by 3.5 euros for the week. Matrif wheat has been trading lower over the past week due to downward pressure from excellent crops in Russia and regions of northern Europe.

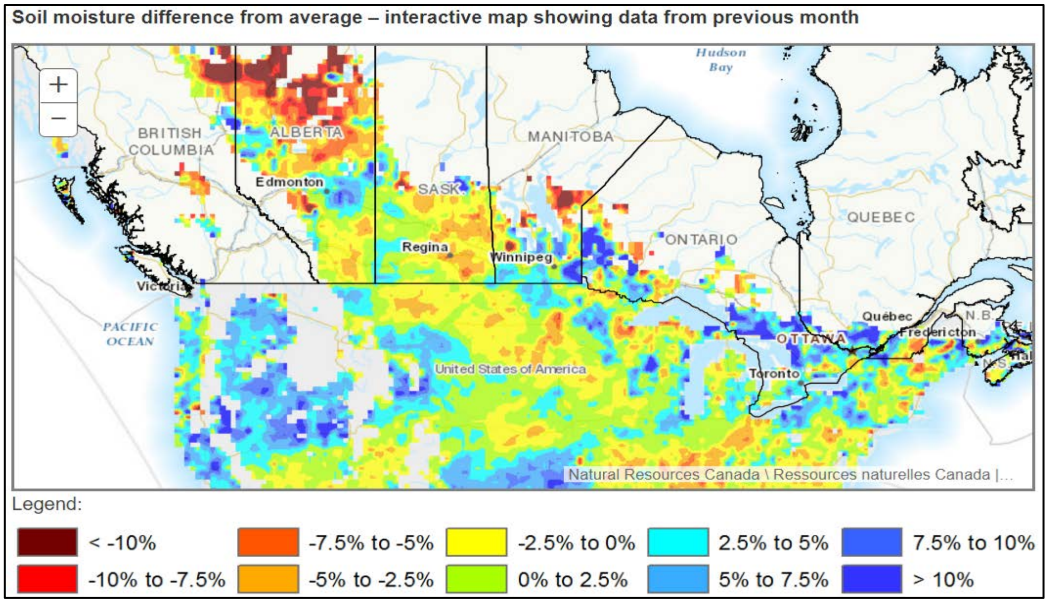
  Canadian wheat:



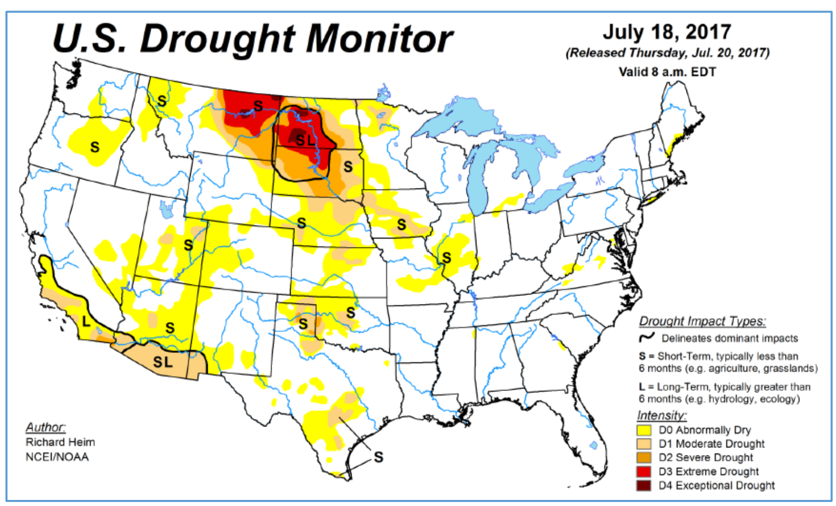


  - According to the CGC, producers delivered 399k mt of wheat into the handling system, which is close to last week's 405k mt. Exports for week 50 were 394k mt, up from last week's 366k mt, and down 9% (-1.3 million mt) from last year's YTD exports.
  - Elevator stocks are currently at 2.8 million mt with 1.6 million mt at primary elevators and most of the remaining inventory at port.
  - The bulk of wheat inventory at port is located on the east coast with 209k mt at Thunder Bay, 433k mt at the St Lawrence, and 145k mt at Bay and Lakes. Meanwhile, the Pacific coast has only 283k mt at port, which is comparatively small.
  - Producers delivered 89k mt of **durum** into the handling system over the past week. Durum *exports* during week 50 amounted to 66k mt; 4.161 million mt year-to-date. This is ahead of last years year to date exports of 4.088 million mt.

  - Manitoba has experienced above normal temperatures over the past week with most regions of the province experiencing scattered showers. Most crops are currently in the flowering or fill stage, and central or southwestern regions would still benefit from additional rain.
  - Saskatchewan's crop progress report indicates normal crop development across most of the province. 71% of fall cereals, 62% of spring cereals, 61% of oilseeds, and 70% of pulse crops are reported to be at normal stages of development. The majority of the province had very little rain in the past week, and drought remains a concern in southern regions. Topsoil moisture across the province is reported to be 3% surplus, 32% adequate, 43% short, and 22% very short.
  - The July 18th Alberta crop report indicates varying rainfall across the province in the past week. The peace river region, as well as northern regions of the province are reporting near normal precipitation, while southern and central regions have been dry. Provincial average crop ratings have fallen by 6% over the past week to 65% good or excellent, compared to the 5-year average of 69% good/excellent for this time of year. Top soil moisture across Alberta is now reported to be 15% poor, 18% fair, 34% good, 24% excellent, and 9% excessive.



- **US wheat:**
  The US winter wheat crop is now reported to be 75% harvested which is up from 67% harvested in last week's report, and ahead of the 5-year average of 73% harvested for this year to date. The US custom wheat harvest has progressed rapidly, with the Nebraska harvest now reported to be 89% complete, Colorado 85% compete, and South Dakota 65% complete. Much of the western South Dakota wheat crop is reported to have been baled for livestock feed due to drought conditions. The average test weight from the US harvest is reported to be 60.1 lbs per bushel, with an average protein of 11.2%. Pacific northwest states are now beginning their wheat harvest with crops Washington, Idaho, and Oregon being rated as 70% or more good to excellent.
  In the weekly USDA crop progress report, 91% of US spring wheat is reported to be heading, which is up from 79% heading last week, and ahead of the 5-year average of 87% heading for this YTD. As of July 17th, 34% of the US spring wheat crop is rated as good/excellent, which is down from 35% good /excellent last week, and down from 69% good /excellent last year.
  The spring wheat harvest has already begun in some regions of South Dakota with initial reports indicating yields of 5-10 bushels per acre.



- **Australian wheat:**
  Australia has reported scatted light showers in southern regions of Western Australia, but rainfall amounts are still well below normal and estimates for the Australian wheat crop are below normal.
  Australian futures slumped on the week on profit taking and the 2-year high in the A$, but Fob values were unchanged as drought intensified bringing further stress to crops and a halt to planting. At current levels, Aussie wheat is losing significant export demand.
- **Argentine wheat:**
  Argentina has had continued dry conditions and the Argentine wheat harvest is now reported to be 50% complete.
  Argentine old crop 11.5% protein wheat was offered at US$188/mt with 11% protein at US$185/mt, but the 12% protein market became inexistent. New crop 12% protein wheat was offered at US$194/mt.
  BAGE put plantings up 3% on the week at 83% complete and in line with last year, whilst farmer selling of the 2016/17 crop rose to 14.7 million mt (8.2 million mt last year).
- **EU wheat:**
  The European wheat harvest is now reported to be in full swing with high protein and good falling numbers reported. Dry conditions continue in regions of southern Europe as well as in the northern Ukraine which remains in a state of drought. But rain continued to interrupt harvest in Germany and concern for quality is growing. In Italy and parts of Spain there was talk of the smallest grain crop in 20 years due to the severe drought, *with durum wheat being the major issue*.
  This was not a good week for EU wheat markets: EU futures were lower last week. The €uro hit 2-year highs, EU cumulative wheat shipments came in almost 70% behind a year ago, and Black Sea 11.5 protein wheat fell to US$10/mt below French values.
- **Black Sea wheat:**
  In the Black Sea, Russian 12.5 protein wheat ended flat at US$196/mt for August plus US$2/mt per month carry, but the 11.5 protein discount widened to US$12/mt with the number of sellers of that quality seeing a marked increase as the harvest ramped up.
  Ukraine's harvest was put at 7.9 million mt and 36% complete.

➢ **Significant trades:**
- Egypt (GASC) bought 120k mt each of Russian and Romanian wheat, plus 60 mt of French wheat at US$220/mt C&F Egypt.
- The Russian and Romanian prices to GASC closely reflected the standard 12.5 protein market plus US$10/mt GASC costings, whereas the French wheat was more aggressively priced, taking just US$6/mt protection.

Wheat Market Outlook:

➢ Significant events:
- In the past week cash prices have been consistently lower than futures prices, which is indicative that futures are currently overvalued.
- On the spring wheat side, reports indicate that a considerable acreage in the northern US plains will now be baled for livestock feed which does provide some support to the market.

➢ *Outlook:*
- The premiums for quality still argue for some major re-adjustments in the world export matrix. Currencies are also complicating the issue with 2-year highs in the €uro and 2-year lows in the dollar.
- There is no significant let-up to dryness in the US, Canada, or Australia although some showers were reported. Dryness has also affected the southern EU crop (notably durum),

the jury is still out on Ukraine, and rain in Northern Europe presents a risk for quality - all of which makes for a very complex wheat market.

- The FSU wheat crop does look like a big one and is currently doing most of the cash business as its harvest progresses.

iii) Primary Elevator Price Tables and Grade Spreads

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

Date: July 24, 2017

NW Sask	Spot		NW Sask	Deferred	
	(bu.)	(mt)		Oct '17 (bu.)	Oct. '17 (mt)
1 CWRS 13.5	$7.87	$289.18	1 CWRS 13.5	$8.05	$295.79
1 CWAD 13.0	$7.74	$284.40	1 CWAD 13.0	$7.74	$284.40
1 CPSR 11.5	$5.30	$194.74	1 CPSR 11.5	$5.18	$190.33
SW Sask			SW Sask		
1 CWRS 13.5	$7.90	$290.28	1 CWRS 13.5	$8.12	$298.36
1 CWAD 13.0	$7.92	$291.01	1 CWAD 13.0	$8.02	$294.69
1 CPSR 11.5	$5.28	$194.01	1 CPSR 11.5	$5.19	$190.70
NE Sask			NE Sask		
1 CWRS 13.5	$7.66	$281.46	1 CWRS 13.5	$7.74	$284.40
1 CWAD 13.0	$8.51	$312.69	1 CWAD 13.0	$8.42	$309.38
1 CPSR 11.5	$5.17	$189.97	1 CPSR 11.5	$4.95	$181.88
SE Sask			SE Sask		
1 CWRS 13.5	$7.79	$286.24	1 CWRS 13.5	$7.80	$286.60
1 CWAD 13.0	$8.48	$311.59	1 CWAD 13.0	$7.56	$277.78
1 CPSR 11.5	$5.17	$189.97	1 CPSR 11.5	$5.26	$193.27

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

Avg. Grade Spread/ Pro Discounts	Cdn$/bu.	Cdn.$/mt
1 CWRS 13.5	Base Grade	Base Grade
2 CWRS 13.5	(0.20)	(7.35)
1 CWRS 12.5	(0.37)	(13.60)
1 CWAD 13.0	Base Grade	Base Grade
1 CWAD 13.5	0.03	1.10
2 CWAD 13.0	(0.79)	(29.03)
2 CWAD 12.5	(0.97)	(35.64)

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 Basis[1] (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
    - HRW in the Pacific North West (PNW) ≈ 3 CWRS in Vancouver
    - SW (lowest price wheat) ≈ CPS red (mostly fed domestically)

[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."

  - 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

Releveant FOB Prices and Export Basis				July 24, 2017
	FOB Prices CDA[1] (calculated)		Street Prices	Export Basis[2]
Type of Wheat	West Coast (Cdn./mt$)	Great Lakes (Cdn.$/mt)	Rosetown (Cdn.$/mt)	Basis: West Coast-Centr. SK (Cdn$/mt)
DNS 14.0	$398.54	$396.24		
HRS	$391.64			
HRW 11.5	$269.83			
SWW 12.0	$263.85			
1 CWRS 13.5[3]	$398.54		$272.64	$125.90
2 CWRS 13.0[3]	$391.64		$267.13	$124.51
3 CWRS[3]	$269.83		$225.24	$44.59
CPS[3]	$257.42		$183.72	$73.70
1 CWAD[4]		$438.07	$278.52	$159.55
Competing wheat:	US$/mt			
Russia 12.5 (Black Sea, 25k mt)	$196.00			
French 11.0 (Rouen)	$196.55			
ASW 10.5 (W Coast)	$255.00			
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% ≈ 1 CRWS 13.5%; HRS ≈ 2 CWRS 13.0%; HRW ≈ 3CWRS; SWW ≈ CPS

[4] Values derived to Lakehead FOB

ADDENDUM

Futures Driven Basis Calculation, Canadian Dollars per MT

Canadian Wheat - World Price Parities					July 24, 2017
Canadian Funds			**Grade**		
PNW value/Vancouver	**1CWRS13.5**	**2CWRS**	**3CWRS**	**Winter wht.**	**CPS**
Dec./Jan. delivery	$10.67	$10.48	$7.17	$7.01	$7.01
Parity Track Rosetown	$9.17	$8.99	$5.67	$5.51	$5.51
Track Bid Rosetown Area	$7.42	$7.27	$6.13	$5.00	$5.00
Gross Margin at Elevator ($/bu)*	**$1.75**	**$1.72**	**-$0.46**	**$0.51**	**$0.51**
Gross Margin at Elevator ($/mt)*	**$64.48**	**$63.09**	**-$16.83**	**$18.71**	**$18.71**

* to cover elevation, elevator market risk, margin