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 April 22, 2019

Focus on Algeria:

- According to the USDA Attaché Post, Algeria’s grain planting season started under favourable conditions and adequate rainfall. Area planted to grain is up 3% from last year at 3.55 mln ha. Usually durum and barley are planted over wheat because of their climate. Over the past decade, grain production has increased over the 10-year average of 2.97 mln mt, but it still far short of domestic consumption needs.
- Algeria will continue to import wheat (esp. common wheat), and less so durum and barley. Post believes that Algerian all wheat imports for 2018/19 will fall 600k mt to 8.1 mln mt and will continue to fall to 8 mln mt in 2019/20 as the country implements policies that will reduce its reliance on imports. Imports into the country will be weather driven. In 2018, the US supplied 6.2% (4.3 mln mt) of Algeria’s common wheat imports, Canada supplied less than 0.5% (262k mt).
- Durum: 10-year average Canadian durum exports to Algeria amount to 748k mt annually, but have been somewhat variable, ranging from 140k mt in 2010/11 to 1.3 mln mt in 2016/17. YTD Cdn. durum exports (to end Feb.’19) have only reached 140.4k mt, and we project full crop
year durum exports to Algeria at max. 240k mt for this year due to an above average domestic production in Algeria. The quality of the domestic durum is far less than Cdn. quality, but the Algerian Gvmt. has been urging domestic mills to use domestic wheat. The 2019 crop looks again promising so in terms of expected volume produced, which would again limit Cdn. exports of durum into Algeria.

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:** May ’19 contract **Chicago winter wheat** closed at 444-2, down 2-6 cents in Thursday’s trade, **down 15-0 cents for the week.**
- May ’19 contract **Kansas hard red winter wheat** closed down 0-4 cents at 420-0, **down 10-4 cents for the week.**
- **Minneapolis,** May ’19 contract **hard red spring wheat** closed at 523-2, down 4-2 cents in Thursday’s trade, **down 10-2 cents for the week,** while Jul ’19 hard red spring wheat closed at 529-4, down 1-6 cents for the day, **down 9-0 cents for the week.**
- **Matif:** Matif wheat futures made their lowest weekly close for 11 months on both old and new crop.
- **Funds:** Index Funds did nothing again. Spec Funds were sizeable sellers at 10 mln mt for the week. This takes them to ~80 mln mt overall short, which is the 2nd largest short ever.

Canadian Wheat:
- Canadian producers delivered 452.6k mt of wheat (excl. durum) into the grain handling system during week 37, ending April 14th. YTD deliveries are now 15.66 mln mt, up 20% from last year. Exports of 313.3k mt during the week create a total of 12.77 mln mt, up 15% (1.69 mln mt) year over year. Although exports have been strong, weekly exports are well below the 396k mt needed per week to reach the AAFC’s number.
According to the Canadian International Merchandise Trade Database (CIMT), as of February 2019, YTD Canadian wheat exports (excl. durum) to all destinations were 11.251 mln mt, a 16% (+1.563 mln mt) increase over last year. Significant increases continue to be seen in China, Indonesia, Columbia, and Chile who have imported 913k mt (+206%), 264k mt (+24%), 204k mt (+33%) and 206k mt (+207%) respectively more product than last year during the same time-frame. Somewhat off-setting decreases were in the US (-396k mt), Japan (-130k mt), Bangladesh (-175k mt) and Ecuador (-247k mt). So far, we have not seen a significant decrease in Chinese wheat imports, however, rumors continue to circulate that while Chinese importers are taking existing contracts, they are reluctant to make new purchases.

In their latest outlook released on Wednesday, the AAFC left their numbers unchanged, including their too high 2018/19 export number of 18.7 mln mt, and their 2019/20 seeded area of 8.23 mln ha, which is a 9% increase from last year (we agree with the increase). StatsCan's Canadian seeded area report is out next Wednesday.

Durum: Canadian producers delivered 157.7k mt of durum into the Canadian grain handling system during week 37. Total deliveries are up 12% from last year at 3.23 mln mt. Exports through the week were a season high of 232.2k mt for a season total of 2.81 mln mt, down just 1% (17.9k mt) from last year. This puts us back on track for the AAFC's unchanged 4.1 mln mt export number. Last year, when similar amounts were exported in a single month it was Italy taking 172.4k mt in week 4, and Morocco taking 167.5k mt in week 28 of 2017/18.

Focus on Morocco: Adequate moisture in the 2017/18 growing season allowed for a 4.91 mln mt crop, which has caused Morocco’s 2018/19 imports to be down. Plentiful rainfall leading up to the 2018/19 growing season encouraged farmers to start seeding relatively early. Between late-Dec. and March, there was very little rain, wheat fields turned yellow and irreparable yield losses were suffered. So, 2019 durum production is forecast down almost 50% y/y at 1.24 mln mt. The USDA Post is estimating that Morocco will import 4.80 mln mt worth of all wheat in 2019/20, 20% more than the year
previous. Durum imports usually account for 15-20% of all wheat imports and most of this comes from Canada. Morocco currently is the second largest customer of Canadian durum (second only to the US). According to the CIMT, Morocco has imported 442,787 mt of the total 1,996,051 mt exported YTD (Aug-Feb). This is down 35k mt from last year, because of the strong crop they had last year.

US wheat:
• US wheat markets posted another round of steep losses. EU, Black Sea and US wheat crop prospects are all looking good and there is nothing to convince speculators to cover shorts.
• US winter wheat G/E ratings of 60% are very strong, 29% higher than last year and 16% above than the 5-year average. This is only because the bulk of the US crop is HRW. When looking at by-state ratings, it is clear the water-logged SRW region is struggling. The 6-10 day forecast is for above normal temperatures for most of the US, which will improve ratings in the SRW area, if not, we will continue to see a further widening of the CBOT-KS spread. Spring wheat planting progressed another point to 2% complete vs 3% last year and the 5-year average of 13%. Dryer conditions will help planting progress next week.
• US wheat sales were within 200-400k mt expectations at 317,700 mt, included in this number was 60k mt to Algeria, Total YTD commitments for HRW, HRS, SRW, white and durum wheat now respectively represent 100%, 97%, 93%, 98% and 71% of the USDA's total 2018/19 export numbers for each class. So, the sales are there, but with just 7 weeks remaining in the MY, O/C sales are essentially N/C lifts. Sales for the 2019/20 MY were 227,800, and another 60k mt of this was to Algeria. US O/C wheat is competitive on a Fob basis, but the US carry vs the EU and Black Sea inverse kicks them out of the N/C market.

Australian wheat:
• Australian Fob wheat values and futures were little changed all week amidst very thin activity and very little news.
• Wheat seeding in Australia will begin shortly and with El Nino weakening, there are hopes for a more normal crop this year although current soil moisture levels remain very low.
• Australian Fob wheat values remained at ~ $245/mt; no change.

Argentine wheat:
• Argentine old crop Fob values for 12% and 12.5% protein wheat this week remained at $217.00/mt, with 11.5% protein wheat at $213-214/mt.

EU wheat:
• Dryness in the EU caused Strategies Grains to cut wheat estimates, reducing 2019/20 EU soft wheat production by 1.3 mln mt to 144.8 mln mt. The German 2019 wheat crop is currently seen 21% higher than last year’s drought-stricken crop at 24.4 mln mt, still less than the 5-year average of 25.7 mln mt.
Mercantile - Wheat

- Matif wheat futures in Europe made their lowest weekly close for 11 months on both old and new crop.

**Black Sea wheat:**
- AHDB erroneously said the ICG’s estimate for 2019/20 **Russian wheat production** was 87 mln mt. The ICG came out later, saying their actual current estimate is 77.1 mln mt, which is based on trend yields. Earlier in the week, SovEcon raised their production estimate 3.4 mln mt to another huge 83.4 mln mt because of favorable weather. This would be the second highest production ever, second only to 2017/18 when 85 mln mt was produced.
- Private estimates of the Russian wheat production potential continue to rise.
- The Black Sea wheat market was quiet. Russian 12.5 protein wheat was offered lower by $3/mt at $224/mt. Even at these lower levels Russian old crop wheat is not finding any fresh business, but on new crop, the Fob inverse makes Russian wheat once again the world’s cheapest origin wheat!

**Significant purchases/trades:**
- There was significant business done last week:
  - **Bangladesh** bought 50k mt 12.5 pro for $267 Linear Out.
  - The **Philippines** bought just 55kt from a 220kt feed tender at $207. The origin was unclear.
  - **Ethiopia** tendered Friday for 400k mt. Jordan is back on the 23rd for 120k mt. Taiwan is also out of the 23rd for 109,175 US wheat.
  - **Morocco** is in on the 25th for 364,000 mt EU soft wheat, and Ethiopia is back again on the 30th for 600k mt.
  - US wheat sales were within 200-400k mt expectations at 317,700 mt. Included in this number was 60k mt to **Algeria**, which is disappointing if this is all the business the US did in last week’s 540k mt purchase.
  - The US Wheat Association thinks that US wheat will be able to capture 80% of **Brazil’s** recently implemented 750,000 mt tariff-free wheat import quota. A US delegation is currently in Brazil to gauge export potential.

**Wheat Market Outlook:**

**Significant events:**
- US wheat markets posted another round of steep losses. EU, Black Sea and US wheat crop prospects are all looking good and there is nothing to convince speculators to cover shorts.
- Private estimates of the **Russian wheat production potential** continue to rise.
- While even lower price levels for Russian old crop wheat are not finding any fresh business, on **new crop**, the Fob inverse makes Russian wheat once again the world’s cheapest origin wheat!
- **US winter wheat G/E ratings** of 60% are very strong, 29% higher than last year and 16% above than the 5-year average.
- Wheat seeding in **Australia** will begin shortly and with El Nino weakening, there are hopes for a more normal crop this year although current soil moisture levels remain very low.
- The **German 2019 wheat crop** is currently seen 21% higher than last year’s drought-stricken crop at 24.4 mln mt.

**Outlook:**

_The old crop trade is coming to an end and the trade is increasingly focused on the weather around the world and the prospects for new crop. Rightly or wrongly, the wheat market has now ejected US-China trade talks from its thinking, as any deal is not going to make any change in the old crop position._
For new crop wheat, there are no evident crop threats, there is no US-China trade deal on the books, and the USDA new crop numbers and balance sheets are still 3 weeks away. Wheat will be all about weather for the next 2-3 months, and other than that, it's tough to find anything to materially move the market.

### iii) Primary Elevator Price Tables and Grade Spreads

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

<table>
<thead>
<tr>
<th>NW Sask</th>
<th>Spot</th>
<th></th>
<th>NW Sask</th>
<th>Deferred</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>{bu.}</td>
<td>{mt}</td>
<td></td>
<td>July '19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[bu.]</td>
</tr>
<tr>
<td>1 CWRS 13.5</td>
<td>$6.54</td>
<td>$240.31</td>
<td>1 CWRS 13.5</td>
<td>$6.57</td>
</tr>
<tr>
<td>1 CWAD 13.0</td>
<td>$6.43</td>
<td>$236.26</td>
<td>1 CWAD 13.0</td>
<td>$6.48</td>
</tr>
<tr>
<td>1 CPSR 11.5</td>
<td>n/a</td>
<td></td>
<td>1 CPSR 11.5</td>
<td>n/a</td>
</tr>
<tr>
<td>SW Sask</td>
<td></td>
<td></td>
<td>SW Sask</td>
<td></td>
</tr>
<tr>
<td>1 CWRS 13.5</td>
<td>$6.44</td>
<td>$236.63</td>
<td>1 CWRS 13.5</td>
<td>$6.46</td>
</tr>
<tr>
<td>1 CWAD 13.0</td>
<td>$6.46</td>
<td>$237.37</td>
<td>1 CWAD 13.0</td>
<td>$6.51</td>
</tr>
<tr>
<td>1 CPSR 11.5</td>
<td>n/a</td>
<td></td>
<td>1 CPSR 11.5</td>
<td>n/a</td>
</tr>
<tr>
<td>NE Sask</td>
<td></td>
<td></td>
<td>NE Sask</td>
<td></td>
</tr>
<tr>
<td>1 CWRS 13.5</td>
<td>$6.28</td>
<td>$230.75</td>
<td>1 CWRS 13.5</td>
<td>$6.33</td>
</tr>
<tr>
<td>1 CWAD 13.0</td>
<td>$6.49</td>
<td>$238.47</td>
<td>1 CWAD 13.0</td>
<td>$6.52</td>
</tr>
<tr>
<td>1 CPSR 11.5</td>
<td>n/a</td>
<td></td>
<td>1 CPSR 11.5</td>
<td>n/a</td>
</tr>
<tr>
<td>SE Sask</td>
<td></td>
<td></td>
<td>SE Sask</td>
<td></td>
</tr>
<tr>
<td>1 CWRS 13.5</td>
<td>$6.24</td>
<td>$229.28</td>
<td>1 CWRS 13.5</td>
<td>$6.30</td>
</tr>
<tr>
<td>1 CWAD 13.0</td>
<td>$6.54</td>
<td>$240.31</td>
<td>1 CWAD 13.0</td>
<td>$6.62</td>
</tr>
<tr>
<td>1 CPSR 11.5</td>
<td>n/a</td>
<td></td>
<td>1 CPSR 11.5</td>
<td>n/a</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Avg. Grade Spread/Pro Discounts</th>
<th>Cdn./Bu.</th>
<th>Cdn./mt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 CWRS 13.5</td>
<td>Base Grade</td>
<td>Base Grade</td>
</tr>
<tr>
<td>2 CWRS 13.5</td>
<td>(0.01)</td>
<td>(0.37)</td>
</tr>
<tr>
<td>1 CWAD 13.0</td>
<td>Base Grade</td>
<td>Base Grade</td>
</tr>
<tr>
<td>1 CWAD 13.5</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2 CWAD 13.0</td>
<td>(0.10)</td>
<td>(3.67)</td>
</tr>
<tr>
<td>2 CWAD 12.5</td>
<td>(0.20)</td>
<td>(7.35)</td>
</tr>
</tbody>
</table>

#### 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)
  - 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)

---


“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.”
 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.
  o West Coast HRS and HRW values essentially dominate the international hard wheat trade and determine its basic value.
  o 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.
  o Nevertheless, the Pacific Coast has increased in importance for durum over time with 38% of total export volume crop year to date.
  o 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

<table>
<thead>
<tr>
<th>Type of Wheat</th>
<th>FOB Prices CDA1 (calculated)</th>
<th>Street Prices</th>
<th>Export Basis2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>West Coast (Cdn./mt)</td>
<td>Great Lakes (Cdn.$/mt)</td>
<td>Rosetown (Cdn.$/mt)</td>
</tr>
<tr>
<td>DNS 14.0</td>
<td>$313.34</td>
<td>$289.84</td>
<td></td>
</tr>
<tr>
<td>HRS</td>
<td>$306.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HRW 11.5</td>
<td>$296.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWW 12.0</td>
<td>$290.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 CWRS 13.53</td>
<td>$313.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 CWRS 13.03</td>
<td>$306.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 CWRS</td>
<td>$296.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPS</td>
<td>$283.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 CWAD4</td>
<td>$349.57</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Competing wheat:
- Russia 12.5 (Black Sea, 25k mt) $224.00
- French 13.3 (Rouen) $212.99
- APW 10.5 [W Coast] $245.00
- Argentine 12.0 $217.00

1 FOB Prices CDA = FOB US$ converted into Canadian Currency
2 Export Basis = FOB Prices CDA minus Cdn. Street Price
3 DNS 14% = 1 CWRS 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**

<table>
<thead>
<tr>
<th>Canadian Wheat - World Price Parities</th>
<th>April 22, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNW value/Vancouver</td>
<td></td>
</tr>
<tr>
<td>1CWRS13.</td>
<td>2CWRS</td>
</tr>
<tr>
<td>May/June delivery</td>
<td></td>
</tr>
<tr>
<td>Canadian Funds</td>
<td></td>
</tr>
<tr>
<td>$8.34</td>
<td>$8.14</td>
</tr>
<tr>
<td>Parity Track Rosetown</td>
<td></td>
</tr>
<tr>
<td>$6.84</td>
<td>$6.64</td>
</tr>
<tr>
<td>Track Bid Rosetown Area</td>
<td></td>
</tr>
<tr>
<td>$6.29</td>
<td>$6.04</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
</tr>
<tr>
<td>3CWRS</td>
<td>Winter wht.</td>
</tr>
<tr>
<td>$7.87</td>
<td>$7.73</td>
</tr>
<tr>
<td>$6.38</td>
<td>$6.23</td>
</tr>
<tr>
<td>$5.69</td>
<td>$5.49</td>
</tr>
<tr>
<td>Winter wht.</td>
<td></td>
</tr>
<tr>
<td>$7.73</td>
<td></td>
</tr>
<tr>
<td>$6.23</td>
<td></td>
</tr>
<tr>
<td>$5.49</td>
<td></td>
</tr>
<tr>
<td>CPS</td>
<td></td>
</tr>
<tr>
<td>$7.73</td>
<td></td>
</tr>
<tr>
<td>$6.23</td>
<td></td>
</tr>
<tr>
<td>$5.49</td>
<td></td>
</tr>
<tr>
<td>Gross Margin at Elevator ($/bu)*</td>
<td></td>
</tr>
<tr>
<td>$0.55</td>
<td>$0.60</td>
</tr>
<tr>
<td>Gross Margin at Elevator ($/mt)*</td>
<td></td>
</tr>
<tr>
<td>$20.38</td>
<td>$22.22</td>
</tr>
<tr>
<td>$25.29</td>
<td>$27.25</td>
</tr>
<tr>
<td>* to cover elevation, elevator market risk, margin</td>
<td></td>
</tr>
</tbody>
</table>