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 29, 2019

Focus on 2019/20 Wheat Yield Projections for the EU and Eastern Europe:

- Given current weather forecasts for the EU and Eastern Europe, the next two weeks will bring widespread rain across the EU and Black Sea which will likely go a long way to remove any immediate concerns over dryness, including the driest areas of eastern Germany and Poland.
‘Assuming’ trend yields and ‘19/20 acreage forecasts for wheat, without a significant crop/weather problem, the combined EU-Russia-Ukrainian exportable wheat surplus will increase by some 10 mln mt.

This means that farmers will be looking to sell rallies, while consumers will be buying hand-to-mouth.

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:** US futures fell 10-25¢/bu this week with KC and Minneapolis at contract lows and KC May ending below $4.00/bu.

**Matif:** Matif old crop futures held the March lows, closing flat on the week, and new crop hit contract lows mid-week.

**Funds:** Index Funds did nothing again. Spec Funds are short almost 29 mln mt of wheat, adding -400k mt during the week.

**Canadian Wheat:**
- Cdn. wheat exports of 442k mt during week 38 result in total of 13.2 mln mt exports crop year to date, **still up 15% (+1.7 mln mt) year over year.** Canada is on schedule for just around 18.1 mln mt for the crop year; exports will have to speed up to reach AAFC’s export target of 18.7 mln mt.
- Canadian **durum** exports were at 113k mt for week 38 and at a season total of 2.9 mln mt, actually up 2% (+44k mt) from last year for the first time this crop year! This puts us back on track for a 4 mln mt export number for the year, close to the AAFC’s 4.1 mln mt export target.

StatsCan said last Wednesday that Canadian farmers intended to plant 25.7 mln ac of all wheat in 2019, up 3.8% from 2018. This would be an 18-year for Cdn. wheat acres.

Spring wheat acreage is expected to increase by 12.0% to 19.4 mln ac, while durum wheat acreage is expected to decrease by a full 18.8% to 5.0 mln ac. The spring wheat acreage represents a 22.7% increase in acres since 2017.
The anticipated decline in durum wheat area is the largest since 2010, when seeded area declined by more than 2.5 mln ac. Pre-report estimates had all wheat at a smaller 24.8 mln acres and durum at a bigger 5.2 mln ac. We expect spring wheat acres at 18.9 mln ac.

- This was not a bullish report, though we see lots of opportunity to increase Cdn. wheat throughput through the handling system while canola exports struggle.
- Durum wheat: A healthy drop in acres this spring will help the durum situation in Canada, but it will likely take another year to clear out this year’s elevated carryout. Getting exports back on track towards the 4.5 mln mt level would also help.
- YTD durum exports to Italy are at 250k mt, but over the crop year will likely miss the 10-year average annual exports of 760k mt by a long shot. Relations with Italy on durum still need some mending!
- YTD exports to Algeria are at only 140k mt, versus the 10-year average 748k mt. This is due to a much higher domestic production in Algeria last year (though quality is lacking), and domestic acreage and conditions in Algeria look good again so far this year.
- Morocco has imported 443k mt YTD, so is well on their way for their 10-year average total of 618k mt. So far, conditions in Morocco are such that we expect them to continue buying good volumes into next crop year as well.
- The remaining ‘big’ buyer is the US, which has imported just under 400k mt YTD compared to a 10-year average import from Cda. of 437k mt (last crop year 753k mt). USDA expects US durum acres to be down sharply this year.

US wheat:
- The USDA crop progress report to Apr. 21st had 62% of the U.S. winter wheat crop in Gd/Exc condition, up 2% from the prev. week and last year’s rating at this time. Just 5% U.S Spring wheat has been seeded, a far cry from the five-year average of 22%; but this is better than 3% a year ago.
- The US weather outlook is cool and wet into at least the first week of May, with snow expected in the N Plains, but the market seems to be ignoring the risk to seeding and newly seeded crops.
- USDA reported US wheat exports at 425k mt for delivery in ’18/19, up 34% from the previous week, but down 4% from the prior 4-week average. Sales were expected at 300-500k mt, so at least came in within the top half of expectations. Mexico was the biggest buyer at 161k mt.
- As of April 18th, combined US wheat exports and unshipped bookings were 8.9% above the same time last year. Shipments are catching up, now down just 1.3%, but outstanding sales are 80.8% larger yr/yr with just under a month and a half left in the crop year.

Australian wheat:
- Australian wheat futures fell to 9-month lows, and it has almost gone unnoticed that the May 2019-Jan 2020 inverse has gone to A$90/mt back in January to just A$20/mt today.
- The Australian Weather Bureau shows 70% probability that the west coast will see above normal precipitation over the next 3 months, but there is no mention of the east or south, and Jan-March precipitation over the whole country was less than half of normal.
- Australian Fob wheat values remained at ~ $245/mt; no change.

Argentine wheat:
- The Argentine Peso collapsed keeping domestic sales activity limited. Seeding starts in a few days with conditions generally favorable, but rain will be needed soon for good germination.
- Argentine old crop Fob values for 12% and 12.5% protein wheat this week were offered at $220.00/mt, with 11.5% protein wheat at $214/mt.

EU wheat:
- Much focus will be on the Saudi Arabia wheat tender outcome on Monday (tdy.).
- German 12.5% protein wheat prices are in line with Russian 12.5% protein wheat.
Black Sea wheat:
- Estimates of Russian old crop exports continue fall somewhat with domestic wheat and flour prices still at/near record levels.
- Assuming normal weather, the combined new crop EU, Russian and Ukrainian wheat balance sheets all look pretty relaxed, and the current updates suggest no major weather issues for now.
- Russian old crop 12.5 protein wheat fell by ~$8/mt and was buyable at $216/mt.

China:
- In 2018/19, Chinese wheat ending stocks comprise about 49% of total world wheat ending stocks. This is down from an estimated 64.5% in ’14/15. The US attaché to China places ’19/20 Chinese wheat ending stocks at a record-high 149.7 mln mt, ~7% above the previous year’s stocks. Domestic consumption in China is shown at 124 mln mt, meaning that China has more than one year’s worth of its wheat requirements in store. This year, Chinese production is seen outpacing consumption with a crop of 131.5 mln mt, marginally from a year ago due to better yields. (The Chinese 2019 wheat support price of 2,240 yuan/mt ($332/mt) is well above CBOT wheat futures, which has recently traded around $160/mt.) Still, if production projections for the EU and Russia become a reality, then Chinese wheat ending stocks as a percentage of world wheat ending stocks would fall to ~47.5%.

Wheat Ending Stocks and the Role of China, USDA & IGC data

➢ Significant purchases/trades:
  There was significant business done last week:
  - The Philippines bought 55,000 mt Aug feed wheat at $203/mt.
  - Tunisia bought 67,000 mt old crop soft wheat at $223-226/mt for June, plus 25,000 mt for early July at $211/mt.
  - Algeria bought around 200kt durum last week at $268-270/mt.
  - Saudi Arabia tendered Friday for 600,000 mt wheat for Jul-Sep. They confirmed to have purchased 625k mt tdy; the old crop purchases look to be sourced from a mix of discounted German/Baltic longs and at least one US HRW cargo. New crop was probably based on Baltic wheat with 1-2% allowances for extension. Unfortunately, Canadian wheat is excluded to Saudi Arabia.
  - USA inspections were 811,000 mt (season total 762 mln bushels, down 4%), sales were 425,000 mt for a season total 931 mln bushels up 9% on last year's 855 mln bushels, and are now just 14 mln bushels from the USDA's annual projection with HRW actually 8 mln bushels ahead.
Wheat Market Outlook:

Significant events:

- Slow demand continues and crop conditions are looking good at this point.
- Following a record crop of 99.5 mln mt, India raised its import duty from 30% to 40%.
- The IGC increased their world wheat production estimate for ’19/20 by 3 mln mt to 762 mln mt. The ICG new crop carryover is up 4 mln mt to 274 mln mt. The ICG Russian production projection is at 79.5 mln mt, up from 77.1 mln mt expected previously.
- StatsCan announced their estimates of Canadian planting intentions as of March, which the markets paid little attention to.
- The USDA crop progress report to Apr. 21st had 62% of the U.S. winter wheat crop in Gd/Exc condition, up 2% from the prev. week and last year’s rating at this time. Just 5% U.S Spring wheat has been seeded, a far cry from the five-year average of 22%; but this is better than 3% a year ago.
- Private estimates of the Russian wheat production potential continue to rise.
- The German 2019 wheat crop is currently seen 21% higher than last year’s drought-stricken crop at 24.4 mln mt.
- USDA will issue its first new crop balance sheets on May 10th.

Outlook:

Slow demand continues and crop conditions are looking good at this point. We don’t see much change for the coming week. Markets in futures will trade in a narrow range and any cash business will continue to be taken care of by origins other than North American. North American farmers are ignoring the markets for now, as they are preoccupied with planting. We expect futures markets to stay range bound for at least the next 30 days.

Wheat is clearly struggling with ample world supplies and a potentially bumper crop in the northern hemisphere. The market is taking note of good moisture for the U.S. winter wheat crop, as well as good growing conditions in the Black Sea region. The wheat market will likely struggle for the next 30-40 days and will be looking for potential trouble spots to help change direction. For now, the only potential for concern may be in Australia.
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 (bu.)</th>
<th>Spot (mt)</th>
<th>NW Sask</th>
<th>Deferred July '19 (bu.)</th>
<th>Deferred July '19 (mt.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 CWRS 13.5</td>
<td>$6.34</td>
<td>$232.96</td>
<td>1 CWRS 13.5</td>
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<td>1 CWAD 13.0</td>
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<td>1 CPSR 11.5</td>
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<td>$203.56</td>
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<td>$197.32</td>
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<td>SW Sask</td>
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<td></td>
<td>NW Sask</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 CWRS 13.5</td>
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<td>$237.37</td>
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<td>$237.73</td>
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<td>$184.82</td>
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</tr>
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<td>1 CWRS 13.5</td>
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<td>$6.10</td>
<td>$224.14</td>
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<td>$238.10</td>
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<td>$238.10</td>
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<td>$195.11</td>
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<td>$5.31</td>
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</tr>
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<td>SE Sask</td>
<td></td>
<td></td>
<td>SE Sask</td>
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<td></td>
</tr>
<tr>
<td>1 CWRS 13.5</td>
<td>$6.05</td>
<td>$222.30</td>
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<td>$6.10</td>
<td>$224.14</td>
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<td>$5.16</td>
<td>$189.60</td>
<td>1 CPSR 11.5</td>
<td>$5.25</td>
<td>$192.91</td>
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</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 CWRS 12.5</td>
<td>(0.15)</td>
<td>(5.51)</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>(0.23)</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 (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)

- 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.

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“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.”
Mercantile - Wheat

- 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

<table>
<thead>
<tr>
<th>Type of Wheat</th>
<th>FOB Prices CDA1 [calculated]</th>
<th>Street Prices</th>
<th>Export Basis</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>$307.41</td>
<td>$282.25</td>
<td></td>
</tr>
<tr>
<td>HRS</td>
<td>$300.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HRW 13.5</td>
<td>$288.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWW 12.0</td>
<td>$289.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 CWRS 13.53</td>
<td>$307.41</td>
<td>$227.81</td>
<td>$79.60</td>
</tr>
<tr>
<td>2 CWRS 13.03</td>
<td>$300.01</td>
<td>$218.63</td>
<td>$81.38</td>
</tr>
<tr>
<td>3 CWRS3</td>
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</tr>
<tr>
<td>CPS3</td>
<td>$282.25</td>
<td>$194.74</td>
<td>$87.50</td>
</tr>
<tr>
<td>1 CWAD4</td>
<td>$308.89</td>
<td>$221.93</td>
<td>$86.96</td>
</tr>
</tbody>
</table>

- Competing wheat:
  - US$/mt
  - Russian 12.5 (Black Sea, 2Sk mt) $212.00 Ine.
  - French 11.5 (Rouen) $212.30 Ine.
  - APW 10.5 (W Coast) $245.00 Ine.
  - Argentine 12.0 $218.00 Ine.

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 = 3 CWRS; SWW = CPS
4 Values derived to Lakehead FOB
## ADDENDUM

**Futures Driven Basis Calculation, Canadian Dollars per MT**

### Canadian Wheat - World Price Parities

<table>
<thead>
<tr>
<th>Canadian Funds</th>
<th>Grade</th>
<th>1CWRS13.</th>
<th>2CWRS</th>
<th>3CWRS</th>
<th>Winter wht.</th>
<th>CPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>May/June delivery</td>
<td></td>
<td>$8.18</td>
<td>$7.98</td>
<td>$7.67</td>
<td>$7.68</td>
<td>$7.68</td>
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<tr>
<td>Parity Track Rosetown</td>
<td></td>
<td>$6.68</td>
<td>$6.48</td>
<td>$6.17</td>
<td>$6.19</td>
<td>$6.19</td>
</tr>
<tr>
<td>Track Bid Rosetown Area</td>
<td></td>
<td>$6.20</td>
<td>$5.95</td>
<td>$5.60</td>
<td>$5.30</td>
<td>$5.30</td>
</tr>
</tbody>
</table>

| Gross Margin at Elevator ($/bu)* |            | $0.48    | $0.53 | $0.57 | $0.89       | $0.89|
| Gross Margin at Elevator ($/mt)* |            | $17.71   | $19.49 | $21.00 | $32.52       | $32.52|

* to cover elevation, elevator market risk, margin