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:

- **In the USDA wheat outlook report**, Canada’s share of world wheat trade is now projected at 11% while Russia’s is projected at 18% and the EU’s at 16%. Russia used to be an importer of Canadian wheat.
- **In terms of total tonnage**, Canadian wheat export volume has remained relatively constant, but Canada has steadily fallen behind in terms of world market share of exports.
- **Canada’s share** of world wheat exports peaked in 1963/1964 at 28%, but this percentage continues to fall due to increasing production and expanding exports in other wheat producing nations.
- **Canadian wheat growers** have concentrated on quality wheat, while most new export demand has been lower grade markets due to expanding world populations and advancements in milling technology.

![World Wheat Trade Pie Chart](chart.png)

Source: USDA, Foreign Agricultural Service, Production, Supply and Distribution online database.
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 this week’s market events in the major wheat origins.

- **Futures:** December contract Chicago wheat closed at 449.4 which is down by 3 cents in today’s trade, and unchanged for the week. December contract Kansas wheat closed at 450.2, up by 4.2 cents for the week, and up by 0.6 cents in Fridays trade. In Minneapolis, December contract hard red spring wheat rallied to close at 634.6 which is up by 13.2 cents for the week, and up by 10.4 cents in Fridays trade. March 2018 hard red spring wheat also rallied to close at 646 which is up by 11.2 cents for the week, and up by 10 cents in Fridays trade.

- **Funds:** For the week neither group showed activity of any consequence.

- **Matif:** MATIF milling wheat closed the week at 164.75 which is up by 1.5 for the week, and unchanged in Fridays trade. The strength in Matif wheat is thought to be driven by Black Sea wheat which has been trading slightly higher despite record Russian crops.

**Canadian wheat:**

- Producers delivered 402.5k mt of wheat into the handling system, which is very close to last week’s deliveries of 404.3k mt. Exports for week 7 were 242k mt, up slightly from last week’s 230k mt, and up by 21% from last year’s YTD exports.

- Producers delivered 73k mt of durum into the handling system over the past week. Durum exports during week 7 amounted to 43k mt; 575k mt year-to-date. This is ahead of last year’s year to date exports of 339k mt.

- The September 18th Manitoba crop progress report indicates that the cereal harvest in nearing completion in most regions. Some regions of Manitoba experienced frost on Sunday. The seeding of winter wheat continues to progress, with no indication of crop emergence to date.

- Saskatchewan’s crop progress report indicates that approximately 75% of all crops have been harvested as of September 18th. 76% of spring wheat have now been harvested.

- Alberta is now reported to be 56% harvested. Provincially 59% of spring wheat, and 96% of durum have been harvested.

**US wheat:**

In the weekly USDA crop progress report, the US winter wheat crop is now reported to be 13% planted as of September 17th, which is up from 5% planted last week, but behind the 5-year average of 15% planted for this year to date.

US winter wheat export values at the gulf have been on the uptrend while hard red spring values at the gulf have been on the decline. [See graph next page]
○ **Australian wheat:**
Ongoing drought in Australia continues to drive production concerns, and Australian wheat production is expected to be significantly lower in 2017/2018. Expectations are that the USDA will again lower its Australian production estimates next month and reports this past week indicate that Australian standard white wheat is quoted at US$245/mt per tonne into southeast Asia including cost and freight, vs US wheat which is quoted at US$235/mt and black sea wheat which is quoted at US215/mt including cost and freight. Australian wheat has been trading higher while farmers halt sales due to concerns about ongoing drought during critical stages of crop development.

Eastern Australian wheat on the ASX exchange is trading at US$232/mt, which is expensive vs Black Sea or EU wheat. There is some rain in the forecast for regions of western Australia, but the 5-day forecast leaves the rest of the country mostly dry.

○ The continued dry weather plus plus the weekend frost is causing crop estimates to be lowered to 19-21mln mt with further reductions quite possible.

○ **Argentine wheat:**
Argentina has had wet rainy weather with reports crop failure in some regions due to excess moisture and disease. Overall production is not currently a concern, but crop quality could be affected if the weather patterns continue. Argentine is currently harvesting summer crops, and planting winter crops.

○ Argentine new crop offers rose US$2-3/mt on ongoing weather concerns; private estimates continued to reduce the crop potential.

○ **EU/Russian wheat:**
Reports from Agritel indicate that the Russian crop could be even larger than USDA estimates, which have been revised upwards several times to a projected 81 million mt. The Russian harvested volume has already reached 78 million mt, and the crop is currently only an estimated 82% harvested. Last years record crop had an average yield of 43 bushels per acre, while this year’s crop is significantly larger at 51 bushels per acre. Russia is currently winning most tenders in the cash markets and Russian wheat offers are significantly cheaper vs offers from Romania or France.

○ The bid-offer on Russian 12.5 protein wheat for October shipment increased to US$190-192/mt, with the 11.5 protein discount still ~ US$10/mt, and feed a further US$5/mt less. But at US$175-180/mt Fob, feed wheat is now largely priced out of Asia as a feed grain.
Black Sea wheat: Reports indicate that Russian wheat exports for September could be 4.1 million mt, vs 3.54 million mt last year, but in spite of this news most cash markets are trading slightly higher for the week. Back Sea wheat is trading at values of $20 per tonne below US wheat values, while Australian wheat is trading at a US$10 premium to US wheat.

Significant purchases/trades: It was another quiet week in cash wheat trading
- Egypt (GASC) purchased 175k mt of Russian wheat at US$210.50-213.25/mt, some US$10/mt above what they paid in their last purchase.
- US wheat inspections were 464k mt (season total 321 mln bu against 315 mln bu a year ago), sales were 307k m for a total 480 mln bu (495 mln bu last year).

Wheat Market Outlook:

- **Significant events:**
  - US$: This past Wednesday the US federal reserve announced that they will reduce the size of their holdings of bonds and mortgage backed securities beginning in October as they begin to unwind a massive balance sheet of assets purchased to stimulate economic growth. While they left their target interest rate unchanged, they announced that they expected to hike interest rates in late 2017, as well as 3 rate hikes in 2018. The US dollar index reacted with an immediate spike, but then traded lower later in the week and continued its declining trend driven by political unrest in the US and heightened tensions with North Korea. The lower US dollar has helped to make US hard red winter exports competitive on the world market, but a future interest rate hike in December could prompt a higher dollar and lower exports.

- **Outlook:**
  - While US spring wheat production is projected to be significantly lower in the 2017/2018 crop year (down by 3.51 million mt), Canadian spring wheat production is virtually unchanged and Russian spring wheat production is projected to be up by 2.12 million mt. 2016/2017 spring wheat production totals were 52 million mt in these three export nations, while 2017/2018 production is expected to 50.23 million mt. Given that we are only facing a 1.77 million mt (or 3.4%) reduction in spring wheat production vs last year’s record crop, and given that this production shortfall is easily offset by a large carry-in stocks, there is no reason for spring wheat to be trading at its current premium to Kansas hard red winter wheat.
The next big USDA report is the quarterly stocks report on September 29th. Final small grain production will also be presented showing wheat production for the year.

A major re-allocation of the world export matrix is still needed. It is now underway, with French wheat pricing, Southern Hemisphere crops, and Russia’s real export capacity being the keys. At the present time, Russian and FSU crops are leading exports while North American and EU exports are lower.

### Estimated HRS Production - Export Nations (million mt)

<table>
<thead>
<tr>
<th></th>
<th>2017/2018 TOTAL PRODUCTION</th>
<th>2016/2018 TOTAL PRODUCTION</th>
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</thead>
<tbody>
<tr>
<td>Canada</td>
<td>20.08</td>
<td>20.45</td>
</tr>
<tr>
<td>Russia</td>
<td>20.25</td>
<td>18.13</td>
</tr>
<tr>
<td>US</td>
<td>9.91</td>
<td>13.42</td>
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</table>

#### 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>
</tr>
</thead>
<tbody>
<tr>
<td>CWRS 13.5</td>
<td>$6.31</td>
<td>$231.85</td>
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<tr>
<td>CWAD 13.0</td>
<td>$7.18</td>
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<td>CPSR 11.5</td>
<td>$4.73</td>
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### Estimated HRS Production - Export Nations (million mt)


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### 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

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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.
  - 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.

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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.”
Table 3: Relevant FOB Prices and calculated Basis, US & Canadian Dollars per M

<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></td>
<td></td>
</tr>
<tr>
<td>DNS 14.0</td>
<td>$359.13</td>
<td>$319.63</td>
<td></td>
</tr>
<tr>
<td>HRS</td>
<td>$351.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HRW 11.5</td>
<td>$275.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWW 12.0</td>
<td>$253.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 CWRS 13.5³</td>
<td>$359.13</td>
<td>$238.84</td>
<td>$120.30</td>
</tr>
<tr>
<td>2 CWRS 13.0³</td>
<td>$351.87</td>
<td>$214.95</td>
<td>$136.91</td>
</tr>
<tr>
<td>3 CWRS³</td>
<td>$275.59</td>
<td>$203.67</td>
<td>$71.92</td>
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<tr>
<td>CPS³</td>
<td>$247.44</td>
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</tr>
<tr>
<td>1 CWAD⁴</td>
<td>$397.27</td>
<td>$252.80</td>
<td>$144.47</td>
</tr>
</tbody>
</table>

Competing wheat: US$/mt

- Russia 12.5 (Black Sea, 25k mt) $186.00
- French 11.5 (Rouen) $191.65
- ASW 10.5 (W Coast) $234.00
- Argentine 12.0 $170-180

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**

<table>
<thead>
<tr>
<th>Canadian Wheat - World Price Parities</th>
<th>Sept. 25, 2017</th>
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<tbody>
<tr>
<td><strong>Canadian Funds</strong></td>
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<tr>
<td>PNW value/Vancouver</td>
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<tr>
<td>Dec./Jan. delivery</td>
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<tr>
<td>1CWRS13.5</td>
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</tr>
<tr>
<td>2CWRS</td>
<td></td>
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<tr>
<td>Parity Track Rosetown</td>
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</tr>
<tr>
<td>Track Bid Rosetown Area</td>
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</tr>
<tr>
<td>Gross Margin at Elevator ($/bu)*</td>
<td>$1.60</td>
</tr>
<tr>
<td>Gross Margin at Elevator ($/mt)*</td>
<td>$58.95</td>
</tr>
<tr>
<td>* to cover elevation, elevator market risk, margin</td>
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9