I’m Brennan!

@BrennanDTurner
b.turner@farmlead.com

• Family farms ~70,000 acres between SK & ND
• Notre Dame Hound (2005)
• Yale University (2009 B.A.Econ)
• Wall Street commodities analyst/trader
• FarmLead named to Forbes Most Innovative Companies in Agriculture in 2017 & 2018
Why FarmLead? Make grain trade easy
FarmLead Turns 5 Years Old!

- $2 Billion USD of grain successfully negotiated
- 2+ million negotiation events
- Our Farmers = 13% of North America’s production of grains, oilseeds, & pulses
  - Includes ~50% of Canadian spring wheat + canola production
- Our Buyers = ~10% of annual demand within North American
- 19 out of top 20 grain buying companies in North America are using FarmLead tools to help them find grain
Let’s Walk and Talk

1. Global Themes
2. Cereals (but mostly wheat)
3. Canola Markets
4. Pulses Markets
5. Combyne: Our Trust-Based Marketplace
6. Being a better grain marketer in 2020
2020 Grain Markets’ Themes

● Geopolitical/trade risk continues to be the major fundamental
  ○ Price equilibrium drifts lower b/c of trade policy
  ○ Populism remains though, creating roadblocks for solutions

● Coronavirus and supply chain challenges (Geezus - another black swan?)

● (A lot of) Supply is there; now where’s the demand?

● Will Canada be able to compete & meet global needs?
Aussie wheat harvest -12% YoY, -36% from 5-year average

HOT UPDATE:

ABARES is forecasting the 2020/21 wheat harvest will jump 40% YoY on 20% increase in acres

AND

better soil moisture
Will the moisture be there?
Big 2019 Canadian Wheat Crop

Largest non-durum wheat crop since bumper harvest in 2013

+2% from 2018, +13% from 5-year average

Exports outlook consistently lowered every month since Sept (AAFC was forecasting 19.2 MMT at the time)

Source: AAFC - Feb 2019
What’s up w/ our wheat exports?

Canadian Wheat (excl. Durum) - Cumulative Exports

YTD ending Feb 23, 2020
8.58 MMT
YoY: -14.9%

Source: Canadian Grain Commission
## Tougher Export Competition

### Feb 2020 WASDE - Wheat

(million metric tonnes)

<table>
<thead>
<tr>
<th>Country</th>
<th>Feb '20 WASDE</th>
<th>Jan '20 WASDE</th>
<th>Previous Year</th>
<th>Change YoY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global 19/20 Production</td>
<td>764.0</td>
<td>764.4</td>
<td>731.5</td>
<td>4.4%</td>
</tr>
<tr>
<td>Global 19/20 Carryout</td>
<td>288.0</td>
<td>288.1</td>
<td>278.3</td>
<td>3.5%</td>
</tr>
<tr>
<td>U.S. 19/20 Production</td>
<td>52.3</td>
<td>52.3</td>
<td>51.3</td>
<td>1.9%</td>
</tr>
<tr>
<td>U.S. 19/20 Exports</td>
<td>27.2</td>
<td>26.5</td>
<td>25.5</td>
<td>6.8%</td>
</tr>
<tr>
<td>Canada 19/20 Production</td>
<td>32.4</td>
<td>32.4</td>
<td>32.2</td>
<td>0.5%</td>
</tr>
<tr>
<td>Canada 19/20 Exports</td>
<td>23.5</td>
<td>24.0</td>
<td>24.4</td>
<td>-3.7%</td>
</tr>
<tr>
<td>Australia 19/20 Production</td>
<td>15.6</td>
<td>15.6</td>
<td>17.3</td>
<td>-9.8%</td>
</tr>
<tr>
<td>Australia 19/20 Exports</td>
<td>8.7</td>
<td>8.7</td>
<td>9.0</td>
<td>-3.4%</td>
</tr>
<tr>
<td>Argentina 19/20 Production</td>
<td>19.0</td>
<td>19.0</td>
<td>19.5</td>
<td>-2.6%</td>
</tr>
<tr>
<td>Argentina 19/20 Exports</td>
<td>13.0</td>
<td>13.0</td>
<td>12.2</td>
<td>6.6%</td>
</tr>
<tr>
<td>E.U. 19/20 Production</td>
<td>154.0</td>
<td>154.0</td>
<td>136.9</td>
<td>12.5%</td>
</tr>
<tr>
<td>E.U. 19/20 Exports</td>
<td>32.0</td>
<td>31.0</td>
<td>23.3</td>
<td>37.3%</td>
</tr>
<tr>
<td>Russia 19/20 Production</td>
<td>73.5</td>
<td>73.5</td>
<td>71.7</td>
<td>2.5%</td>
</tr>
<tr>
<td>Russia 19/20 Exports</td>
<td>34.0</td>
<td>34.0</td>
<td>35.8</td>
<td>-5.1%</td>
</tr>
<tr>
<td>Ukraine 19/20 Production</td>
<td>29.0</td>
<td>29.0</td>
<td>25.1</td>
<td>15.7%</td>
</tr>
<tr>
<td>Ukraine 19/20 Exports</td>
<td>20.5</td>
<td>20.5</td>
<td>16.0</td>
<td>28.0%</td>
</tr>
</tbody>
</table>

Source: USDA
Canadian Wheat Prices vs Ending Stocks

(Not Including Durum)

Source: AAFC - Feb 2020
#1 CWRS Wheat Prices - 13.5% Protein Average Spot in NW Saskatchewan

$6.20 CAD / bushel
MoM: -0.6%  QoQ: +4.7%  YoY: -8.2%

Thru Feb 28, 2020

Source: PDQ.info, Combyne/FarmLead
Good basis opportunities available in CWRS Wheat

<table>
<thead>
<tr>
<th></th>
<th>September</th>
<th>October</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Movement</td>
<td>Movement</td>
</tr>
<tr>
<td><strong>Cash Prices</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Today</td>
<td>$6.26</td>
<td>$6.38</td>
</tr>
<tr>
<td>1 Yr Ago</td>
<td>$6.39</td>
<td>$6.45</td>
</tr>
<tr>
<td>Change Yo'</td>
<td>-2.0%</td>
<td>-1.1%</td>
</tr>
<tr>
<td><strong>Futures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Today</td>
<td>$5.46</td>
<td>$5.61</td>
</tr>
<tr>
<td>1 Yr Ago</td>
<td>$5.82</td>
<td>$5.82</td>
</tr>
<tr>
<td>Change Yo'</td>
<td>-6.2%</td>
<td>-3.6%</td>
</tr>
<tr>
<td><strong>Basis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Today</td>
<td>$0.80</td>
<td>$0.77</td>
</tr>
<tr>
<td>1 Yr Ago</td>
<td>$0.57</td>
<td>$0.63</td>
</tr>
<tr>
<td>Change Yo'</td>
<td>40.4%</td>
<td>22.2%</td>
</tr>
</tbody>
</table>

Best New Crop Pricing Date in 2019/20: June 3, 2019
Best New Crop Pricing January 21 & June 3, 2019
Best New Crop Pricing Date for 2020/21 (so far): January 21, 2020

Source: PDQ Info
#1 CPS Wheat Prices - 11.5% Protein Average Spot in NW Saskatchewan

- **2019/20**
- **2018/19**
- **3-Yr Avg**

**Price Timeline:**
- **$6.20 CAD / bushel**
- **Thru Feb 28, 2020**

**Performance:**
- **MoM: -3.3%**
- **QoQ: +0.2%**
- **YoY: -7.7%**

**Source:** PDQ Info, Combyne/FarmLead
CPS Wheat: Also some solid new crop basis

<table>
<thead>
<tr>
<th></th>
<th>September</th>
<th>October</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash Prices</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Today</td>
<td>$5.06</td>
<td>$5.11</td>
</tr>
<tr>
<td>1 Yr Ago</td>
<td>$4.96</td>
<td>$5.02</td>
</tr>
<tr>
<td>Change Yo'</td>
<td>2.0%</td>
<td>1.8%</td>
</tr>
<tr>
<td><strong>Futures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Today</td>
<td>$4.69</td>
<td>$4.83</td>
</tr>
<tr>
<td>1 Yr Ago</td>
<td>$4.83</td>
<td>$4.83</td>
</tr>
<tr>
<td>Change Yo'</td>
<td>-2.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Basis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Today</td>
<td>$0.37</td>
<td>$0.28</td>
</tr>
<tr>
<td>1 Yr Ago</td>
<td>$0.14</td>
<td>$0.19</td>
</tr>
<tr>
<td>Change Yo'</td>
<td>164.3%</td>
<td>47.4%</td>
</tr>
</tbody>
</table>

Best New Crop Pricing Date in 2019/20:
- June 3, 2019: $6.02
- June 3, 2019: $6.12

Best New Crop Pricing Date for 2020/21 (so far):
- Jan 21, 2020: $5.45
- Jan 21, 2020: $5.45

Source: PDQ Info
#1 Durum Prices - 13% Protein
Average Spot in NW Saskatchewan

Thru Feb 28, 2020

$6.20 CAD / bushel
MoM: -0.2%  QoQ: -0.6%  YoY: +13%

Source: PDQ Info, Combyne/FarmLead
Durum Looking for More Demand (PLEASE!)

Italy buying a bit more (But not as much as they used to)

Turkey helping making up some additional international demand

More “self-sustainability” in North Africa = less imports
Rebound in Durum Acres for Plant 2020

More production coming from Canada in 2020/21.
Less durum coming from Europe and the U.S. though.
Likely more hand-to-mouth buying
Main Wheat Factors

Bullish
- Ongoing dryness in Australia (means more exports to there...going on 9 straight months of Canadian wheat to the Land Down Undaa)
- More wheat exports to China (It’s ironic)
- Wet fall in Europe means less acres harvested

Bearish
- China’s 2019/20 imports down to just 2.9 MMT
- EU exports competition
- Record global wheat crop in 2020/21 (Ukraine and Russian crops both look solid)
Oats
Oats Prices vs Ending Stocks

- **Ending Stocks**
- **Avg Price**

<table>
<thead>
<tr>
<th>Year</th>
<th>Ending Stocks</th>
<th>Avg Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015/16</td>
<td>967</td>
<td>$2.75</td>
</tr>
<tr>
<td>2016/17</td>
<td>703</td>
<td>$3.50</td>
</tr>
<tr>
<td>2017/18</td>
<td>784</td>
<td>$3.75</td>
</tr>
<tr>
<td>2018/19</td>
<td>397</td>
<td>$3.25</td>
</tr>
<tr>
<td>2019/20 (Jan)</td>
<td>650</td>
<td>$4.00</td>
</tr>
<tr>
<td>2019/20 (Feb)</td>
<td>550</td>
<td>$4.25</td>
</tr>
<tr>
<td>2020/21 (Jan)</td>
<td>900</td>
<td>$4.50</td>
</tr>
<tr>
<td>2020/21 (Feb)</td>
<td>900</td>
<td>$4.50</td>
</tr>
<tr>
<td>2021/21</td>
<td>680</td>
<td>$3.50</td>
</tr>
</tbody>
</table>

**5-Yr Avg**

**Source:** AAFC - Feb 2020
Main Oats Factors

Bullish
- Oat Milk! (500 MT = 5M litres though)
- Strong exports (largest since 2007/08)

Bearish
- Acres increasing in 2020 in Canada, U.S., Australia, and the EU
- Usually boom/bust cycle being seen
Barley
Despite reduction in acres in 2020, slower domestic and international demand will push ending stocks higher these next 2 years.
Feed Barley Prices (Del'd SK Elevator)

Latest Price (Feb 26, 2019): $3.54/bushel
MoM: -20.9%
QoQ: +9.5%
YoY: -21.3%

Source: Saskatchewan Agriculture
Main Barley Factors

**Bullish**
- Australian production -11% from 5-Yr avg (exports continue to be limited)
- Strong exports (largest since 2007/08)

**Bearish**
- Weaker Canadian cattle numbers (-3% YoY)
- Stronger/bigger 2019/20 EU malt barley crop
- China potentially buying more U.S. sorghum with new trade deal
- More substitution effects in feed markets
Canola
More canola from Australia than once thought

*Might create some competition in Europe.*

However, European 2019/20 rapeseed ending stocks will be close to zero
Another big canola harvest

Does the 1 – 2 MMT still in the field matter on the markets?

Obviously, China not buying as much as they used to some seed getting routed through the Middle East
Export markets definitely miss China

Increase in shipments to Europe are helping but it doesn’t replace the customer who used to buy 1 in every 5 rows of Canadian canola.
#1 Canola Prices

Average Spot in NW Saskatchewan

- **2019/20**
- **2018/19**
- **3-Yr Avg**

Thru Feb 28, 2020

- **$9.49 CAD/bushel**
- MoM: -0.3%
- QoQ: -1.4%
- YoY: -6.3%

Source: PDQ Info, Combyne/FarmLead
When to price 2020 canola?

<table>
<thead>
<tr>
<th>Cash Prices</th>
<th>September Movement</th>
<th>October Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today</td>
<td>$9.92</td>
<td>$9.97</td>
</tr>
<tr>
<td>1 Yr Ago</td>
<td>$10.28</td>
<td>$10.30</td>
</tr>
<tr>
<td>Change Yo'</td>
<td>-3.5%</td>
<td>-3.2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Futures</th>
<th>September Movement</th>
<th>October Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today</td>
<td>$10.78</td>
<td>$10.78</td>
</tr>
<tr>
<td>1 Yr Ago</td>
<td>$10.99</td>
<td>$11.12</td>
</tr>
<tr>
<td>Change Yo'</td>
<td>-1.9%</td>
<td>-3.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Basis</th>
<th>September Movement</th>
<th>October Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today</td>
<td>-$0.86</td>
<td>-$0.80</td>
</tr>
<tr>
<td>1 Yr Ago</td>
<td>-$0.71</td>
<td>-$0.83</td>
</tr>
<tr>
<td>Change Yo'</td>
<td>-21.1%</td>
<td>-3.6%</td>
</tr>
</tbody>
</table>

- **Best New Crop Pricing Date in 2019/20**: Jan 24, 2019
- **Best New Crop Pricing Date for 2020/21 (so far)**: Jan 10, 2020

Source: PDQ Info
**Good News**

Very strong domestic demand

**Bad News**

You might want to keep checking your bins

---

**Canadian Canola Prices vs Ending Stocks**

Source: AAFC - Feb 2020
Main Canola Factors

Bullish
- Situation with China coming to a head
- Increased export opportunities into Europe (5.2 MMT of imports in 2019/20)
- Increased export opportunities into the Middle East (more crush capacity than in year’s past)
- Strong domestic crush

Bearish
- China’s 2019/20 imports down to just 2.9 MMT
- EU 2020 production: last estimated at 17.1 MMT, (+400,000 MT from Harvest 2019)
- Similar acres in Plant 2020 as last year
- Swine fever = weaker canola meal demand
Another solid year of Canadian pea production, repeat in 2020?

Overall, a pretty good year of pea production.

Expectations for next year are virtually identical to 2019

Source: AAFC - Feb 2020
Strong demand from Asia (especially China) helping exports

More buying from China and Bangladesh

Optimism for more imports from India but that seems very unlikely
#2 Yellow Pea Prices
Average Spot in NW Saskatchewan

Thru Feb 28, 2020

$6.80 CAD / bushel
MoM: +0.4%  QoQ: +3.8%  YoY: -3.5%

Source: PDQ info, Combyne/FarmLead
Green Pea Prices (Del'd SK Elevator)

Latest Price (Feb 26, 2020): $10.88 CAD per bushel
MoM: -9.6%
QoQ: -6.4%
YoY: -8.4%

Source: Saskatchewan Agriculture
Some optimism for pea prices despite higher carryout

Despite heavier stocks, prices are expected to be near where they are today.

Musical crops of colours will ultimately determine where the market goes.
Lentils
Sideways production, exports, carryout, and prices

Similar supply structure as peas (flat) but continuing to diversify exports (Turkey a bigger buyer this year)
Large Green Lentils (Del'd SK Elevator)

Latest Price (Feb 26, 2020): $0.24 CAD per lb

MoM: -4.8%
QoQ: -8.8%
YoY: +14.3%

Source: Saskatchewan Agriculture
Slight drawdown in stocks = slight improvement in price

With sideways-to-lower acreage in 2020, prices are expected to marginally improve.
Main Peas (& Pulses) Factors

Bullish
- China continues to buy a lot
- Increasing pea protein demand from consumers
- Increasing petfood market demand

Bearish
- Tariffs/protectionism from India
  - (-60% in imports in the 2020/21 crop year due to govt market intervention)
- Bigger acres, production potential in Plant 2020
- Chasing green prices likely mean prices will revert (could also mean some better yellow pea prices though!)
Trust-based marketplace: Combyne

Marketplace
Connections
Listings
Chat
Why should any of this matter?

Society’s expectations of business are rising

WANTED: More environmental awareness, sustainable, social good

ETC ETC ETC
More Transparency. Please.
30 MMT Carbon Net Capture

- 60 MMT in farmer emissions
- 11 MMT captured in soil
- 79 MMT capture in grain

*This ↑ is not shared/talked about. Ever.*
“Sustainable” Canola Going to the EU

- No-Till
- Continuously cropped for 5 years
- Field records
Technological Proof

The data is already available.
Open Source Wins

Closed loop systems only benefit small numbers
Optionality of what tools can be used maintains ownership, pride.
Leverage Your Team

A farmer’s bench of transparent ground truth data
There are benefits:

1. Consumer trust
2. Market access
3. Differentiation
4. Defense
A Better Grain Marketing Plan in 2020

1. When are your cashflow needs?
2. What’s your cost of production?
3. What’s your quality?
Are you a farm or a hedge fund?
Hedge fund managers are just like you!

- They have to weigh multiple different variables
- They manage an operation with multiple people, suppliers
- Many outside factors they cannot control

DIFFERENCE: They understand, respect, & manage risk better
1. Admit you have no idea what the market is going to do

2. A risk manager acknowledges this and manages their exposure to the market

3. Weighs the upside potential versus the downside risks

4. Decreases their price risk exposure as market
   1. Reaches new heights ("sell into strength")
   2. Looks like there are more downside risks

5. Just because you “don’t need to sell” doesn’t mean you should stop managing your risk exposure
3 day-to-day best practices

- Minimize the loss aversion that you face
  - The feeling that you have of selling a little and the price going up (and still have more grain to sell)
  - The feeling when you didn’t do anything, and the price went down

- Work on recognizing recency bias
  - “I just sold some grain 2 weeks ago; I don’t need to sell right now”

- Do some pencil farming!
  - How many bushels of each crop = 10%?
  - How many truckloads of each crop = 10%?
  - Recalibrate and review each calendar quarter
LET'S CHAT NOW OR LATER!

Brennan Turner
306-715-4540 (c)
b.turner@FarmLead.com
@CombyneAg or @FarmLead