2019 Western Canadian Wheat Crop Quality Report
Outline

- Harvest Sample Program
- Wheat classes and varieties
- Grading factors and protein
Canadian Grain Commission

The Canadian Grain Commission

- regulates grain handling in Canada
- establishes and maintains science-based standards of quality
- support Canada’s reputation as a consistent and reliable source of high-quality grain
Canadian Grain Commission

The Canadian Grain Commission works to achieve 2 key Departmental Results:

• domestic and international markets regard Canadian grain as dependable and safe
• farmers are fairly compensated for their grain
Harvest Sample Program

- Annual
- Voluntary
- Informative
- Quality data at grainscanada.gc.ca
Harvest Sample Program

Goals

- Assess quality of annual harvest
  - Grades
  - End-use functionality
- Identify grading factors within crops which are relevant to the harvest
- Supports scientific research in grain quality and safety
Harvest Sample Statistics

2019

- 13,000 samples graded
- Representing 14 different grain types
  - Cereal crops
  - Oilseeds
  - Pulses
Wheat, Canada Western Red Spring
CWRS
Quality data by crop region, 2019

Wheat, Canada Western Red Spring
Wheat, CWRS Varieties
Harvest Sample Statistics – Dec 4, 2019

5420 samples of CWRS

- No. 1 CWRS: 31.1%
- No. 2 CWRS: 42.2%
- No. 3 CWRS: 16.0%
- CW feed: 10.7%
- CW feed: 10.7%
CWRS Grading factors

- **% of crop**
  - Mildew: 19.0% (2.0% CW Feed, 8.7% 3 CWRS, 19.0% 2 CWRS)
  - Fusarium Damage: 13.3% (2.9% CW Feed, 11.1% 3 CWRS, 9.3% 2 CWRS)
  - Severe Sprouted: 14.8% (5.8% CW Feed, 3.8% 3 CWRS, 5.2% 2 CWRS)
  - Sprouted: 2.6% (0.9% CW Feed, 0.2% 3 CWRS, 1.2% 2 CWRS)

- **Grading factor**
  - Total: 30.7% (13.5% CW Feed, 13.2% 3 CWRS, 10.0% 2 CWRS)
CWRS Protein

13.5% moisture basis

<table>
<thead>
<tr>
<th>Crop Year</th>
<th>% of Protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>13.2</td>
</tr>
<tr>
<td>2011</td>
<td>13.1</td>
</tr>
<tr>
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<td>2017</td>
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</tr>
<tr>
<td>2018</td>
<td>13.0</td>
</tr>
<tr>
<td>2019</td>
<td>13.3</td>
</tr>
</tbody>
</table>

10 Year Average protein – 13.5%
1 CWRS Protein

13.5% moisture basis

<table>
<thead>
<tr>
<th>Crop Year</th>
<th>Western Prairies</th>
<th>Eastern Prairies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
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<tr>
<td>2019</td>
<td>14.2</td>
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</table>
2 CWRS Protein

13.5% moisture basis

<table>
<thead>
<tr>
<th>Crop Year</th>
<th>Western Prairies</th>
<th>Eastern Prairies</th>
<th>Overall Prairies</th>
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<tbody>
<tr>
<td>2015</td>
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<td></td>
</tr>
<tr>
<td>2016</td>
<td>13.1</td>
<td>13.7</td>
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<td>2017</td>
<td>13.2</td>
<td>12.5</td>
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</tr>
<tr>
<td>2018</td>
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<td>13.7</td>
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</tr>
<tr>
<td>2019</td>
<td></td>
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<td>13.0</td>
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</table>
2 & 3 CWRS Protein

13.5% moisture basis

Crop Year

<table>
<thead>
<tr>
<th>Year</th>
<th>2 CWRS</th>
<th>3 CWRS</th>
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</thead>
<tbody>
<tr>
<td>2010</td>
<td>13.4</td>
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<td>2011</td>
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</tr>
<tr>
<td>2019</td>
<td>13.0</td>
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</table>
3 CWRS Protein
13.5% moisture basis

10 Year Average protein – 13.5%
Wheat, Canada Prairie Spring Red
CPSR
Quality data by crop region, 2019

Wheat, Canada Prairie Spring Red
Wheat, CPSR Varieties

- AAC Penhold
- AC Rowyn
- 5700PR
- AAC Foray
- AAC Crossfield
- AAC Ryley
- Other varieties

2017
2018
2019
Harvest Sample Statistics

168 samples of CPSR

- 56.5% No. 1 CPSR
- 32.1% No. 2 CPSR
- 11.3% CW feed
CPSR Grading factors

<table>
<thead>
<tr>
<th>Grading factor</th>
<th>CW Feed</th>
<th>2 CWRS</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Frost</td>
<td>16.0%</td>
<td>19.6%</td>
<td>3.6%</td>
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<tr>
<td>Mildew</td>
<td>22.0%</td>
<td>19.6%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Severe Sprouted</td>
<td>0.7%</td>
<td>3.0%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Sprouted</td>
<td>1.2%</td>
<td>1.2%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

% of crop
CPSR Protein

13.5% moisture basis

10 Year Average protein – 12.3%
Wheat, Canada Western Amber Durum
CWAD
Quality data by crop region, 2019

Wheat, Canada Western Amber Durum
Wheat, CWAD varieties

- Transcend
- CDC Precision
- Brigade
- AAC Spitfire
- Strongfield
- CDC Fortitude
- CDC Alloy
- CDC Verona
- AAC Raymore
- Other varieties

- 2017
- 2018
- 2019
Harvest Sample Statistics

1236 samples of CWAD

No. 1 CWAD: 25.8%
No. 2 CWAD: 23.9%
No. 3 CWAD: 28.5%
No. 4 CWAD: 10.1%
No. 5 CWAD: 11.7%
CWAD Grading factors

% of crop

Grading factor

Mildew
Test Weight
Hard Vitreous Kernels
Sprouted
Severely Sprouted

5 CWAD
4 CWAD
3 CWAD
2 CWAD
Total

Grading factor

www.CanadianWheat.ca
### CWAD Protein

**13.5% moisture basis**

<table>
<thead>
<tr>
<th>Year</th>
<th>Protein %</th>
</tr>
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<tbody>
<tr>
<td>2010</td>
<td>12.8</td>
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<td>2011</td>
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**10 Year Average protein** – **13.1%**