Outlook for 2009
Hard Red Spring Wheat Crop

IAOM Flour City District
August 21, 2009

Brian Sorenson, Director
Northern Crops Institute
Fargo, ND
2008 Production of HRS

- **12%**
- **48%**
- **20%**
- **13%**
## 2009 HRS Crop Projections
(USDA, August 1, 2009)

<table>
<thead>
<tr>
<th>State</th>
<th>2009 Projected Harvested Acres</th>
<th>Projected Yield (bu/acre)</th>
<th>Production (bushels)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minnesota</td>
<td>1.7 Million</td>
<td>51</td>
<td>86.7 million</td>
</tr>
<tr>
<td>Montana</td>
<td>2.4 Million</td>
<td>28</td>
<td>66.4 million</td>
</tr>
<tr>
<td>North Dakota</td>
<td>6.4 Million</td>
<td>40</td>
<td>256 million</td>
</tr>
<tr>
<td>South Dakota</td>
<td>1.5 Million</td>
<td>43</td>
<td>64.5 million</td>
</tr>
<tr>
<td><strong>Total U.S.</strong></td>
<td><strong>13.2 Million</strong></td>
<td><strong>41.5</strong></td>
<td><strong>548.3 million</strong></td>
</tr>
</tbody>
</table>
U.S. SPRING WHEAT PLANTINGS BY STATE

Source: USDA July 7/10/09
U.S. SPRING WHEAT PRODUCTION BY STATE

Source: USDA August 8/12/09
North Dakota Wheat Production

• Wheat is the largest crop grown in North Dakota, accounting for 24% of farm revenue and more than ¼ of total crop acreage
• Hard red spring wheat is the main class of with 6.7 million acres planted in 2009
• Durum was planted on 1.7 million acres
• Hard red winter wheat was planted on 0.55 million acres in 2009
ND PLANTED ACRES

Million Acres

25
20
15
10
5
0

2003 2004 2005 2006 2007 2008 2009

- Dry Beans
- Winter Wheat
- Barley
- Sunflowers
- Peas/Lentils
- Canola
- Durum
- Corn
- Soybeans
- Spring Wheat
North Dakota Wheat Planted Acreage

Thousand hectares

2003 2004 2005 2006 2007 2008 2009

Winter Wheat  Durum  Spring Wheat
2009 HRS Crop

- Conditions this spring were very wet due to wet fall, large amounts of snowfall and flooding
- Crop was planted 2-6 weeks behind normal
- Summer has been cool with adequate moisture in most areas
- Cool temperatures have promoted yield potential
- No major disease issues observed
- Crop conditions have remained good throughout the growing season
- Will protein be lower due to growing conditions and higher yields?
U.S. HRS Planting Progress

Percent

- 2008
- 2009
- 5-yr. avg.

12-Apr 19-Apr 26-Apr 3-May 10-May 17-May 24-May 31-May 7-Jun

0 20 40 60 80 100
U.S. HRS Emergence
U.S. HRS Heading Progress

Percent

- 2008
- 2009
- 5-yr. avg.

<table>
<thead>
<tr>
<th>Date</th>
<th>2008</th>
<th>2009</th>
<th>5-yr. avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>28-Jun</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-Jul</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-Jul</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-Jul</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26-Jul</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Aug</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2009 HRS Harvest Progress
(As of August 16, 2009)

• 13% of U.S. HRS crop was harvested
  – (5 year average is 48%)
• 3% of ND crop was harvested
  – (5 year average is 43%)
• 9% of MN crop was harvested
  – (5 year average is 45%)
• 66% of SD crop was harvested
  – (5 year average is 83%)
• 4% of MT crop was harvested
  – (5 year average is 44%)
2009 HRS Harvest Progress

• ND crop is two to four weeks behind average
• Potential for frost is a growing concern
• Shorter harvest days in September
• Weather pattern typically shifts after the first week of September
• Potential for pre-harvest sprouting
  • Low falling number
2009 HRS Crop

- Total spring wheat planted acreage is down 3% to 13.8 million acres
  - Of this, 5.3 million hectares are HRS
- Average U.S. spring wheat yield is expected to be 41.5 bushels per acre, up 3.2 bushels from July estimate
- Harvested acres expected to be 13.2 million acres
- HRS production expected to reach 548 million bushels, up 8% from July estimate
2008 N.D. HARD RED SPRING PRODUCTION
(246 Million Bushels)
## 2009 Durum Crop Projections
(USDA, August 1, 2009)

<table>
<thead>
<tr>
<th>State</th>
<th>2009 Projected Harvested Acres</th>
<th>Projected Yield (bu/acre)</th>
<th>Production (bushels)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Dakota</td>
<td>1.63 Million</td>
<td>34</td>
<td>55.42 million</td>
</tr>
<tr>
<td>Montana</td>
<td>0.53 Million</td>
<td>26</td>
<td>13.65 million</td>
</tr>
<tr>
<td>Arizona</td>
<td>0.12 Million</td>
<td>100</td>
<td>12.40 million</td>
</tr>
<tr>
<td>California</td>
<td>0.15 Million</td>
<td>100</td>
<td>15.5 million</td>
</tr>
<tr>
<td>Total U.S.</td>
<td>2.45 Million</td>
<td>39.9</td>
<td>97.99 million</td>
</tr>
</tbody>
</table>
U.S. HRS Crop Condition Ratings

(Condition ratings indicate yield potential, disease and pest damage, and other physical characteristics)

A rating of 500 indicates that 100% of the crop is in excellent condition.
Winter Wheat Plantings by State

Thousand Hectares

Montana  North Dakota  Minnesota  South Dakota

2006  2007  2008  2009
U.S. WHEAT PLANTED AREA
since 1990

Million Acres

Million Hectares

Winter Wheat  Spring Wheat  Durum

USDA July 7/10/09
TOP IMPORTERS OF U.S. HRS
FIVE-YEAR AVERAGE (2004/05 – 2008/09)

Million Bushels

Million Ton

Japan
Philippines
Taiwan
Venezuela
Spain
Korea Rep.
Italy
Mexico
China
Thailand

USDA Export Inspections
Xldata/Both/Exports/Top 10 & 5 yr avg
EXPORT TRENDS – BY REGION

US Hard Red Spring Wheat

<table>
<thead>
<tr>
<th>Region</th>
<th>Million Bushels</th>
<th>Million Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Africa/Mid East</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. &amp; S. America</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- 03/04
- 04/05
- 05/06
- 06/07
- 07/08
- 08/09
WORLD WHEAT STOCKS

Source: USDA Aug 8/12/09
XIdata/world/all wheat/wheat/prod
Hard Wheat Milling

• Converting Pilot Durum Mill into “Swing” Mill
  – Retain durum milling capabilities
  – Added capabilities for U.S. Hard Wheats
    • HRS, HRW and Hard White wheats
    • Grain cleaning, including color sorter
    • Startup planned for September 2009
Thank you!

Special thanks to Erica Olson, North Dakota Wheat Commission for her help in making of this presentation.
# U.S. Hard Red Spring Supply & Demand

<table>
<thead>
<tr>
<th></th>
<th>04-05</th>
<th>05-06</th>
<th>06-07</th>
<th>07-08</th>
<th>08-09</th>
<th>09-10 Proj.</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beg Stocks</td>
<td>4.3</td>
<td>4.3</td>
<td>3.6</td>
<td>3.2</td>
<td>1.9</td>
<td>3.9</td>
<td>113%</td>
</tr>
<tr>
<td>Production</td>
<td>14.3</td>
<td>12.7</td>
<td>11.8</td>
<td>12.2</td>
<td>13.9</td>
<td>13.9</td>
<td>0%</td>
</tr>
<tr>
<td>Imports</td>
<td>0.2</td>
<td>0.3</td>
<td>1.4</td>
<td>1.3</td>
<td>1.2</td>
<td>1.1</td>
<td>-11%</td>
</tr>
<tr>
<td>Tot Supply</td>
<td>18.8</td>
<td>17.4</td>
<td>16.7</td>
<td>16.7</td>
<td>17.0</td>
<td>18.9</td>
<td>11%</td>
</tr>
<tr>
<td>Dom Use</td>
<td>5.9</td>
<td>6.1</td>
<td>6.7</td>
<td>6.6</td>
<td>7.5</td>
<td>7.2</td>
<td>-4%</td>
</tr>
<tr>
<td>Exports</td>
<td>8.5</td>
<td>7.7</td>
<td>6.8</td>
<td>8.3</td>
<td>5.9</td>
<td>6.5</td>
<td>11%</td>
</tr>
<tr>
<td>Tot Use</td>
<td>14.5</td>
<td>13.8</td>
<td>13.5</td>
<td>14.9</td>
<td>13.1</td>
<td>13.7</td>
<td>5%</td>
</tr>
<tr>
<td>End Stocks</td>
<td>4.3</td>
<td>3.6</td>
<td>3.2</td>
<td>1.9</td>
<td>3.9</td>
<td>5.2</td>
<td>32%</td>
</tr>
<tr>
<td>S/U Ratio</td>
<td>30%</td>
<td>26%</td>
<td>24%</td>
<td>12%</td>
<td>30%</td>
<td>38%</td>
<td></td>
</tr>
</tbody>
</table>

Source: USDA August 8/12/09
09-10 NDWC unofficial
## U.S. WHEAT SUPPLY & DEMAND

**Million Tons**

<table>
<thead>
<tr>
<th></th>
<th>04-05</th>
<th>05-06</th>
<th>06-07</th>
<th>07-08</th>
<th>08-09</th>
<th>Proj 09-10</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beg Stocks</td>
<td>14.9</td>
<td>14.7</td>
<td>15.5</td>
<td>12.4</td>
<td>8.3</td>
<td>18.2</td>
<td>118%</td>
</tr>
<tr>
<td>Production</td>
<td>58.7</td>
<td>57.3</td>
<td>49.2</td>
<td>55.8</td>
<td>68.0</td>
<td>59.4</td>
<td>-13%</td>
</tr>
<tr>
<td>Imports</td>
<td>1.9</td>
<td>2.2</td>
<td>3.3</td>
<td>3.1</td>
<td>3.5</td>
<td>3.0</td>
<td>-13%</td>
</tr>
<tr>
<td>Tot Supply</td>
<td>75.6</td>
<td>74.2</td>
<td>68.1</td>
<td>71.3</td>
<td>79.8</td>
<td>80.6</td>
<td>1%</td>
</tr>
<tr>
<td>Dom Use</td>
<td>31.8</td>
<td>31.2</td>
<td>30.9</td>
<td>28.6</td>
<td>34.0</td>
<td>34.5</td>
<td>1%</td>
</tr>
<tr>
<td>Exports</td>
<td>29.0</td>
<td>27.5</td>
<td>24.7</td>
<td>34.4</td>
<td>27.6</td>
<td>25.9</td>
<td>-6%</td>
</tr>
<tr>
<td>Tot Use</td>
<td>60.8</td>
<td>58.7</td>
<td>55.7</td>
<td>63.0</td>
<td>61.6</td>
<td>60.4</td>
<td>-2%</td>
</tr>
<tr>
<td>End Stocks</td>
<td>14.7</td>
<td>15.5</td>
<td>12.4</td>
<td>8.3</td>
<td>18.2</td>
<td>20.2</td>
<td>11%</td>
</tr>
<tr>
<td>S/U Ratio</td>
<td>24%</td>
<td>26%</td>
<td>22%</td>
<td>13%</td>
<td>29%</td>
<td>33%</td>
<td></td>
</tr>
</tbody>
</table>

Source: USDA August 8/12/09

Xldata/USW/S&D
WORLD WHEAT PRODUCTION – MAP

Canada

U.S.

EU 27

FSU

China

India

Argentina

Australia

USDA August xdata./world/all/prod & use 8/12/09
WHEAT PRODUCTION
Amongst Major Exporters – Million Bushels

Source: USDA Aug 8/12/09
Xldata/world/all wheat/prod/exports/stocks