HOBO?

FARMER, it's the only way I can get my grain to market.
U.S. WHEAT PLANTINGS & PRODUCTION
-Acres/Bushels

Source: USDA November 2014
Xldata/USW/acres
VALUE OF ND ALL WHEAT CROP (GROSS)

Million $

$857 $813 $821 $1,149 $1,048 $1,076 $1,130 $2,340 $2,297 $2,391 $1,816 $1,634 $2,738 $1,801 $1,822

Source: ND Agricultural Statistics Service
U.S. HRS Production Region / Export Path

72% → 7%
1-2% → 18%
EXPORT MARKETING

- Customer base of more than 80 countries
- HRS
  - Typically export 50% of crop
  - Asia is major demand center - 60-70%
  - ND wheat competes at highest price level in international trade
- Durum
  - Typically export 25% of crop
  - North Africa and Europe major demand center
  - ND wheat known for higher protein and color
U.S. HRS USAGE (DOMESTIC/EXPORT)

Source: USDA Nov 2014
TOP IMPORTERS OF U.S. HRS
FIVE-YEAR AVERAGE (2009/10 - 2013/14)

Million Bushels

Million Ton

Japan
Philippines
Taiwan
Korea Rep
China
Indonesia
Venezuela
Thailand
Mexico
Italy

USDA Export Inspections
**NORTH DAKOTA GRAIN HANDLING TRENDS**

- **Single Car** - 1 railcar (3,700 bushels or 100 MT)
- **Multi Car** - 2-99 cars (<360,000 bu or <9,800 MT)
- **Shuttle Train** - 100+ cars (360,000 bu or 9,800 MT)

### Share of Annual HRS Shipments

<table>
<thead>
<tr>
<th>Year</th>
<th>1979</th>
<th>1999</th>
<th>2004</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td># Facilities</td>
<td>589</td>
<td>443</td>
<td>405</td>
<td>307</td>
</tr>
<tr>
<td>Shuttle Shippers</td>
<td>0</td>
<td>9</td>
<td>24</td>
<td>54</td>
</tr>
<tr>
<td>Top 5 Mkt Share</td>
<td>5%</td>
<td>9%</td>
<td>12%</td>
<td>15%</td>
</tr>
</tbody>
</table>

### North Dakota Grain Handling Trends

- **Year**
  - 1979
  - 1999
  - 2004
  - 2013
- **# Facilities**
  - 589
  - 443
  - 405
  - 307
- **Shuttle Shippers**
  - 0
  - 9
  - 24
  - 54
- **Top 5 Mkt Share**
  - 5%
  - 9%
  - 12%
  - 15%

### Share of HRS Wheat Shipments

- **Shipment Mode**
  - Truck
  - Single
  - Multi
  - Shuttle

- **Share of HRS Wheat Shipments**
  - 2004
  - 2013
EMERGING TRENDS IN RAIL FREIGHT

- Shuttle train - single origin/destination (10,000 MT) - Priority
- Efficiency incentives – Goal to increase velocity/turn rate
  - Load in 15 hours at country origin/unload incentive at export point
- Significant increase in oil production in HRS region - Bakken
  - Insufficient pipeline capacity - more oil movement by rail
    - Higher farm-to-port freight costs & service delays -- Base tariff and “secondary” market premiums
    - Higher costs borne by producers and customers
    - Service delays of 20 days adds uncertainty – deferred export offers
- Heavy investment by railroads to improve service volume and turn rate
  - Expect bigger and better railroad – 3 to 5 years
  - $5 billion investment at BNSF
NORTH DAKOTA RAIL TRAFFIC TRENDS

- Grain production, by weight, has increased about 47% compared to the early 1990s.
- Oil production shipped by rail, by weight, has increased about 350% compared to 2008.

Source: USDA & EIA
WHEAT RAIL RATE TRENDS

Pacific Northwest (Portland)

Approximately 100 Metric Ton per car

Source: BNSF Published Tariff
### HRS Price Impacts Due to Higher Rail Freight

<table>
<thead>
<tr>
<th>Month</th>
<th>Export (Per Metric Ton)</th>
<th>Producer (Per Bushel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-12</td>
<td>$350</td>
<td>$6.80</td>
</tr>
<tr>
<td>Mar</td>
<td>$325</td>
<td>$6.08</td>
</tr>
<tr>
<td>May</td>
<td>$335</td>
<td>$6.52</td>
</tr>
<tr>
<td>July</td>
<td>$320</td>
<td>$6.08</td>
</tr>
<tr>
<td>Sept</td>
<td>$315</td>
<td>$6.08</td>
</tr>
<tr>
<td>Nov</td>
<td>$300</td>
<td>$5.44</td>
</tr>
<tr>
<td>Jan-13</td>
<td>$310</td>
<td>$6.08</td>
</tr>
<tr>
<td>Mar</td>
<td>$300</td>
<td>$5.44</td>
</tr>
<tr>
<td>May</td>
<td>$285</td>
<td>$5.44</td>
</tr>
<tr>
<td>July</td>
<td>$275</td>
<td>$5.44</td>
</tr>
<tr>
<td>Sept</td>
<td>$250</td>
<td>$5.44</td>
</tr>
<tr>
<td>Nov</td>
<td>$225</td>
<td>$5.44</td>
</tr>
<tr>
<td>Jan-14</td>
<td>$200</td>
<td>$5.44</td>
</tr>
<tr>
<td>Mar</td>
<td>$175</td>
<td>$5.44</td>
</tr>
<tr>
<td>May</td>
<td>$150</td>
<td>$5.44</td>
</tr>
<tr>
<td>July</td>
<td>$125</td>
<td>$5.44</td>
</tr>
<tr>
<td>Sept</td>
<td>$100</td>
<td>$5.44</td>
</tr>
</tbody>
</table>

Additional rail cost:

- **Per Metric Ton:** $4.08 to $10.89
- **Per Bushel:** $4.08 to $12.25

*Source: US Wheat & USDA*
INFRASTRUCTURE - Rail/Pipeline Issues

- Current/Recent Concerns
- Pipeline Capacity Insufficient
- Keystone Symbolic of the Issue
- Significant Oil Movement will Remain on Rail
GRAIN MARKETING

- **System Capacities**
  - Exports vs Domestic

- **Unit Loaders**
  - Increase Velocity/Turns
  - Problems Servicing Domestic Market
    - Other Premium Markets
      - High Pro
      - Milling Quality Durum

- **Producer Marketing Strategies**
  - Likelihood of Continued Congestion
  - Risk Management/Marketing Opportunities
MARKETING PATTERNS

❖ Seasonal Movements Overwhelm Capacity
  – Marketing Opportunities
    - Wheat ahead of Canadian
    - Soybeans ahead of Southern Hemisphere

❖ Grain Storage - On Farm
  – Two crops in past
  – Additional Volumes with Current Crop Diversity
  – New Construction Evident

❖ Export Facilities
  – Increasing Efficiency
  – Inspection Issues
RAIL CONSIDERATIONS

- Increasing Investment in Rail System
- Increasing Capacity around Chicago
- Address Domestic Mill Issues
  - Non shuttle
- Alternatives to Canadian Gov’t Mandate
  - Now Extended to March 2015?
- Rail Performance Incentives/Penalties Discussion