USDA’s Perspective on Agricultural Transportation Priorities

Ag Transportation Summit
August 4, 2015
Rosemont, IL
Why Are We At This Summit?

Transportation is Critical for Agriculture

Agricultural Marketing Service
U.S. Agricultural Trade

Source: AMS Analysis of USDA Economic Research Service and Foreign Agricultural Service data
<table>
<thead>
<tr>
<th>Product</th>
<th>Millions $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soybeans</td>
<td>24,201</td>
</tr>
<tr>
<td>Corn</td>
<td>10,621</td>
</tr>
<tr>
<td>Horticultural Products</td>
<td>10,311</td>
</tr>
<tr>
<td>Tree Nuts And Preparations</td>
<td>8,096</td>
</tr>
<tr>
<td>Fruits and Preparations</td>
<td>7,903</td>
</tr>
<tr>
<td>Wheat</td>
<td>7,687</td>
</tr>
<tr>
<td>Feed and Feed Ingredients</td>
<td>7,562</td>
</tr>
<tr>
<td>Vegetables and Preparations</td>
<td>7,016</td>
</tr>
<tr>
<td>Beef &amp; Veal</td>
<td>6,013</td>
</tr>
<tr>
<td>Soybean Cake &amp; Meal</td>
<td>5,493</td>
</tr>
</tbody>
</table>
Transportation Analysis and Market Reports:

- U.S. Grain
- Other Ag. Commodities
- Brazil and Mexico grain and soybean
- Modal Share Analysis
- Commodity Profiles
- Rail studies
- Study of Rural Transportation Issues
- Surface Transportation Board filings
- Data

www.ams.usda.gov/AgTransportation
Grain Transportation Report

- Weekly publication
- Detailed overview of grain transportation market
- Rail, Barge, Truck, Ocean, and Grain Exports
- Historical data available online

www.ams.usda.gov/gtr
Ocean Shipping Container Availability Report

- Weekly publication
- Assists with market intelligence
- Helps U.S. ag exporters locate empty containers
- 18 intermodal locations
- 5 container types
- www.ams.usda.gov/oscar
Transportation of U.S. Grains: A Modal Share Analysis 1978-2013 Update

- Updated every 1 to 2 years
- Examines trends in modal usage
  - For Rail, Barge & Truck
- Domestic and Export Movements
  - For Corn, Wheat, Soybean, Sorghum & Barley
U.S. Grains and Oilseeds Transported

Source: Transportation of U.S. Grains: A Modal Share Analysis. USDA, AMS.
Domestic Use: Percentage of U.S. Grain and Oilseed Movements by Transportation Mode, 1984 - 2013

Source: Transportation of U.S. Grains: A Modal Share Analysis. USDA, AMS.
Exports: Percentage of U.S. Grain and Oilseed Movements by Transportation Mode, 1984 - 2013

Source: Transportation of U.S. Grains: A Modal Share Analysis. USDA, AMS.
Total: Percentage of U.S. Grain and Oilseed Movements by Transportation Mode, 1984 - 2013

Source: Transportation of U.S. Grains: A Modal Share Analysis. USDA, AMS.
Other AMS Reports of Interest

- Grain Truck and Ocean Rate (GTOR) Advisory (quarterly)
- Brazil Quarterly Indicators & Annual Guide
- Mexico Cost Indicators Report (quarterly)
- Transportation Profiles
- Profiles of Top Ag Ports
- Waterways Fact Sheet
- Study of Rural Transportation Issues
Cooperative study with Kansas State University

Examined cost structures and competitiveness for shipping grains/oilseeds via ocean from:

- Argentina
- Brazil
- United States

1 The U.S.-South American ocean freight spread competitiveness occurs in the Atlantic route (U.S.-Gulf) to China and not in the U.S. Pacific Northwest (PNW) because of the Panama Canal and the Canal transit costs limitations.
### Vessel costs from U.S. Gulf versus Argentina and Brazil to Shanghai, August 2014

<table>
<thead>
<tr>
<th>Cargo Mean Quantity</th>
<th>U.S. Gulf</th>
<th>Argentina</th>
<th>Brazil</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>56,000 mt</td>
<td>60,000 mt</td>
<td>66,000 mt</td>
</tr>
<tr>
<td>Nautical miles (nm)</td>
<td>9,977</td>
<td>11,186</td>
<td>11,031</td>
</tr>
<tr>
<td>Voyage days</td>
<td>39</td>
<td>42.5</td>
<td>42</td>
</tr>
<tr>
<td>Panama Canal</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laytime both ends</td>
<td>20</td>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td>Total voyage duration days</td>
<td>60</td>
<td>66.5</td>
<td>65</td>
</tr>
<tr>
<td>Port and Canal fees</td>
<td>$550,000</td>
<td>$430,000</td>
<td>$180,000</td>
</tr>
<tr>
<td>Percentage of total costs</td>
<td>16.2</td>
<td>13.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Total costs</td>
<td>$3,400,000</td>
<td>$3,303,500</td>
<td>$3,015,000</td>
</tr>
<tr>
<td>Freight rate:</td>
<td>$56.67</td>
<td>$55.06</td>
<td>$45.68</td>
</tr>
</tbody>
</table>

1 Metric tons

Source: O’Neil Commodity Consulting
Marketing U.S. Grain and Oilseed by Container

- Cooperative study with North Dakota State University
- Analysis of rail and port container traffic activity
- Insight into marketing activities, trends, and opportunities via container
Other Coop Research Reports

Texas A&M

- Tracking U.S. Grain, Oilseed and Related Product Exports in Mexico
- Impacts of Transportation Infrastructure on the U.S. Cotton Industry

Stakeholder Collaboration

- Rail Market Share of Grain and Oilseed Transportation
- Rail Rate Mediation and Arbitration for Grain Shippers
Seasonality of Grain Shipments and Peak Demand

Class I Railroad Weekly Grain Carloadings

Source: AMS Analysis of Association of American Railroads, *Weekly Railroad Traffic*
Weekly Barge Grain Movements through Mississippi River Locks 27 (tons)

Source: U.S. Army Corps of Engineers
## Grain Export Inspections by Port Region, Sep. 1 - April 30

<table>
<thead>
<tr>
<th></th>
<th>2013/14</th>
<th>2014/15</th>
<th>2010-2012 Average</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2010-2012 Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- million bushels -</td>
<td></td>
<td>- market share (%) -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mississippi Gulf</td>
<td>1,759</td>
<td>1,829</td>
<td>1,411</td>
<td>59%</td>
<td>60%</td>
<td>55%</td>
</tr>
<tr>
<td>Texas Gulf</td>
<td>240</td>
<td>152</td>
<td>266</td>
<td>8%</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Pacific Northwest</td>
<td>839</td>
<td>922</td>
<td>763</td>
<td>28%</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Great Lakes</td>
<td>42</td>
<td>66</td>
<td>50</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Atlantic</td>
<td>95</td>
<td>97</td>
<td>64</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,976</td>
<td>3,067</td>
<td>2,555</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: AMS Analysis of USDA Federal Grain Inspection Service Data
Rail is Important for Agriculture

- Railroads move 24 percent of U.S. grain and 35 percent of export grain movements.
- Ag shippers are concerned with many issues, such as:
  - inconsistent service
  - high rates
  - switching limitations/restricted interchange
  - fuel surcharge calculations
  - effectiveness of the rate challenge process
- Record Investments by Rail - $28 billion in 2014 & projected $29 billion in 2015
Dependency on Rail

Rail Market Share of Grain Transportation 2009-2012

States
Market Share
- 6 to 9%
- 10 to 18%
- 19 to 29%
- 30 to 46%
- 47 to 83%

Notes:
1) Grains and oilseeds include Barley, Corn, Cottonseeds, Flaxseed, Oats, Peanuts, Rough Rice, Rye, Sorghum, Soybeans, and Wheat
2) Annual crop production compared to rail movements during the subsequent marketing year for each grain and oilseed.

Sources:
Surface Transportation Board, Confidential Waybill Samples
USDA National Agricultural Statistics Service, Crop Production Annual Report
### Railcar Backlog Improvement

#### Outstanding Railcar Orders for Grain

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CN</td>
<td>159</td>
<td>341</td>
<td>N/A</td>
</tr>
<tr>
<td>CP</td>
<td>0</td>
<td>2,489</td>
<td>16,615</td>
</tr>
<tr>
<td>UP</td>
<td>1,126</td>
<td>6,984</td>
<td>N/A</td>
</tr>
<tr>
<td>BNSF</td>
<td>131</td>
<td>6,166</td>
<td>8,462</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,416</td>
<td>15,980</td>
<td>25,077</td>
</tr>
</tbody>
</table>

Source: Class I Railroad Status Updates filed with STB

* The actual number reported by CP under its old order system was 33,229. However, in a filing to STB on its new order system, CP indicated the true amount was roughly half of the amount reported under the old system.
Current STB Proceedings

- **EP 665**: Rail Transport of Grain, Rate Reg. Review
- **EP 724**: U.S. Rail Service Issues
- **EP 722**: Railroad Revenue Adequacy
- **EP 661**: Rail Fuel Surcharges (Safe Harbor)
- **EP 711**: Competitive Switching
EP 711 Competitive Switching

Source: USDA AMS
Trucking is Critical for Agriculture

• Trucks carry 70 percent of the tonnage of agricultural, food, forest, alcohols, and fertilizer products

• Trucks link farmers/ranchers to end markets, both domestic and foreign

• Ag’s needs are seasonal, requiring frequent trips during planting and harvest seasons

• Many products are perishable and time sensitive, requiring the services best provided by trucks
Truck Issues

- **2012:** Expanded Ag Exemption and exemptions for certain farm vehicles and their drivers from the hours of service (HOS) rules

- **2015:** 2-year exemption from the 30-minute rest break provision of the HOS regulations for hauling of livestock and bees on interstate highways

- **Ongoing Issue:** Truck size and weight
  - Ag & other industries w/ heavy products want 97,000 limit with 6th axle
  - OOIDA, rail & safety advocates oppose
  - DOT studying per Congressional mandate
Ocean Shipping Needed to Serve Ag’s Global Customers

- **U.S. Ag Exports:** About 75% are shipped by ocean, 28% in containers
- **U.S Grain Exports:** About 10% are in containers
- **Gulf Ports:** Over 60% of export grain, or over 78 million metric tons
- **Pacific Northwest (PNW):** 25% of export grain, or over 32 million metric tons
Ocean Shipping Issues

- Port congestion increasing
- Investment needed
- Chassis management needs improvement
- Driver turn times need improvement
- Legislation on port performance data, labor disputes
- Upcoming negotiations on all coasts
Barge & Inland Waterways

• In 2013, Barges moved to PNW and Gulf Ports:
  o 61 percent of our corn exports
  o 42 percent of our soybean exports
  o 40 percent of our wheat exports

• For shippers near the inland waterways, barges offer a low-cost transportation alternative

• Critics argue the O&M costs and capital costs of the inland waterways should be fully covered by industry

• Industry says the waterways have multiple uses and public funding is needed
Inland Waterway Issues

- Fuel tax for commercial users of the inland waterways was raised by 9 cents per gallon in 2015
- Expected to raise construction and rehabilitation revenues by $30-36 million per year
- Funding for new projects will be limited, as construction funds are needed to finish on-going projects
- Funding issues are outside USDA’s jurisdiction
- Funding decisions are made by others, such as the White House, OMB, the U.S. Army Corps of Engineers, and Congress
Take Away?

✓ Agriculture is Important to our Country’s Economy

✓ Transportation is Important for Ag’s Success

✓ Many Complex Issues Are Pending that Will Affect Agriculture, such as:
  - Rail, Truck, Barge, and Ocean Shipping

✓ AMS is a Resource for Info on Ag Transportation
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