Why Should Farmers Care About Transportation?  
...Because our international competitiveness depends on it.

Costs of transporting soybeans: U.S. vs. Brazil (per metric ton; 4th quarter, 2012)

<table>
<thead>
<tr>
<th>Destination</th>
<th>Truck</th>
<th>Barge</th>
<th>Ocean</th>
<th>Total Trans</th>
<th>Farm Value</th>
<th>Customer Cost</th>
<th>T. as % of Cust. Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Davenport to Shanghai</td>
<td>$10.86</td>
<td>$33.95</td>
<td>$43.69</td>
<td>$88.50</td>
<td>$522.99</td>
<td>$611.49</td>
<td>14.47%</td>
</tr>
<tr>
<td>Sioux Falls to Shanghai</td>
<td>$10.86</td>
<td></td>
<td></td>
<td>$94.08</td>
<td>$516.86</td>
<td>$610.94</td>
<td>15.40%</td>
</tr>
<tr>
<td>N. Mato Grosso to Shanghai</td>
<td>$109.80</td>
<td></td>
<td>Ocean</td>
<td>$160.22</td>
<td>$536.60</td>
<td>$696.82</td>
<td>22.99%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$50.42</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Source: USDA
The Soy Transportation Coalition – Farmer funded & farmer led

Locks & Dams: Frustration is up; Optimism is down

- **Argument #1:** *How we allocate money is just as important as how much money we allocate.*
  - Comparison: U.S. lock & dam projects vs. foreign examples (Panama Canal, Deurganck Lock)
    - Olmsted Lock & Dam ($775 million → $3.1 billion)
    - McAlpine Lock & Dam – received 61% of capable funding → 38% cost overrun, 6 ½ years added to project
  - Describe alternative funding mechanisms that provide: 1.) Money up front & 2.) Greater certainty
  - Opportunities for private investment?
Locks & Dams: Frustration is up; Optimism is down

Argument #2: A predictably good inland waterway system is better than a hypothetically great one.

- Should we transition from a “build & expand” approach to a “preserve & maintain” approach? Viability? Cost savings?
- Cost of 1 lock construction project ($376.8 million) is approximately equal to the cost of 9 major rehabilitation projects ($40.7 million).
Panama Canal Expansion – Opportunity for increased efficiency, or are we shifting the bottleneck?

- Soybean checkoff-funded study
  - Total grain & oilseeds transiting the canal will increase 30% by 2020/21
  - Each vessel will accommodate up to 13,300 additional metric tons (488,642 bushels); $6-7 million in additional value; 35 cents per bushel savings
  - Increase the average draw area by 91 miles (70 miles to 161 miles); Impact on rail rates
Panama Canal Expansion – Opportunity for increased efficiency, or are we shifting the bottleneck?

Pre Panama Canal Expansion (70 miles)

Post Panama Canal Expansion (111 miles)

Post Panama Canal Expansion (161 miles)
Trucking Concerns

- Freight demand by all modes of transportation will increase by 75% by 2035; Demand for trucking will increase by 77% by 2035  
  \textit{Source: U.S. DOT}

- Since 1980, miles of public roadways have increased by only 4.5%  
  \textit{Source: U.S. DOT}

- “Trucker jobs go unfilled, leading to delayed deliveries” (USA Today: 6-25-12)
Trucking Concerns

- Must be open to opportunities to get more out of the current system

- Checkoff study: Compared 5 axle, 80,000 lb semi vs. 6 axle, 97,000 lb semi
  - Motorist safety
  - Infrastructure wear & tear
  - Cost savings & efficiency gains for farmers
    - 183 additional bushels per load
    - Time savings: 1 day

- Expanded weight limits will be revisited in 2014
U.S. Agriculture: A 21st Century Industry Utilizing an Early 20th Century Rural Infrastructure

**Iowa**

<table>
<thead>
<tr>
<th>Category</th>
<th>Then</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Farms (Total)</td>
<td>206,000 (1950)</td>
<td>92,400 (2010)</td>
</tr>
<tr>
<td>Average Farm Size</td>
<td>169 acres (1950)</td>
<td>333 acres (2010)</td>
</tr>
<tr>
<td>Volume (bushels)</td>
<td>687 million (1940)</td>
<td>2.83 billion (2011)</td>
</tr>
<tr>
<td>% Living in Rural Areas</td>
<td>60.4% (1930)</td>
<td>36% (2010)</td>
</tr>
<tr>
<td>% Consumed on Farm</td>
<td>3.12% (1950)</td>
<td>0.06% (2010)</td>
</tr>
<tr>
<td># of Hog Farms</td>
<td>153,619 (1954)</td>
<td>8,758 (2007)</td>
</tr>
<tr>
<td>Average # of Hogs per Farm</td>
<td>93 (1954)</td>
<td>5,398 (2007)</td>
</tr>
<tr>
<td>Average Tractor Weight</td>
<td>5,904 lbs (1950)</td>
<td>11,816 lbs (2011)</td>
</tr>
<tr>
<td>Railroad Miles</td>
<td>9,808 (1920)</td>
<td>3,925 (2009)</td>
</tr>
</tbody>
</table>
Rural roads to cropland: Converting a liability into an asset...A cost into a source of revenue.

- 1 mile of road = 8 acres (assuming average width of 66 ft. – road, embankments, right of way)
- Average annual savings of converting 1 mile of road to cropland: $10,000 (paved); $5,000 (gravel)
- Estimated annual county property tax revenue from converting 1 mile of road to cropland: $100 - $250
- Multiplier effect: Additional economic activity from increased cropland - $808 for state & federal government
Better technology for better bridge maintenance & stewardship

- Current approach of visual inspection is variable & subjective; Can result in suboptimal stewardship of scarce resources & unnecessary bridge postings
- Partnerships with Iowa DOT/ISU & state DOTs or counties in 12 STC sponsoring states
- Pilot programs to utilize technology to better evaluate the true condition of our bridge inventory

  - “Sixteen critical (embargo) bridges previously posted in Iowa...were re-evaluated using diagnostic load testing...Subsequently, the Office of Bridges and Structures was able to justify removal for the majority of the postings.” (Source: Iowa DOT)
  - "(Norm) McDonald (State Bridge Engineer - Iowa DOT) estimates several dozen of the nearly 4,100 bridges maintained by the state have been field load tested. The number is even less at the county level. 'Typically there’s an increase in bridge capacity when you do that, like 75 percent of the time,' McDonald contends." (Source: Iowa Soybean Review)
Agriculture and Railroads: “Maintaining a Track Record of Success”

- Rail Investment in Rural America
  - Evaluated the gap between future rail investment & the needs of rural America on a state by state basis
  - Examined various incentives to determine how the investment gap can be addressed
  - Profiled a grain handler or soybean processor to highlight how much more economical rail projects could be
Thank You

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