
Kansas Soybean Expo

“Infrastructure & Its Importance to the U.S. Market”

January 11, 2017



**SOY TRANSPORTATION
COALITION**

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, 2015)

Davenport to Shanghai

Truck - \$8.38

Barge - \$25.51

Ocean - \$27.77

Total Trans - \$61.66

Farm Value - \$315.03

Customer Cost - \$376.69

T. as % of Cust. Cost – 16.37%

Sioux Falls to Shanghai

Truck - \$8.38

Rail - \$54.80

Ocean - \$14.90

Total Trans - \$78.08

Farm Value - \$308.65

Customer Cost - \$386.73

T. as % of Cust. Cost – 20.19%

N. Mato Grosso to Shanghai

Truck - \$76.94

Ocean – \$20.00

Total Trans - \$96.94

Farm Value - \$286.43

Customer Cost - \$383.37

T. as % of Cust. Cost – 25.29%

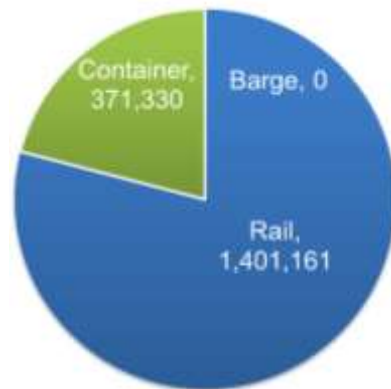
Source: USDA



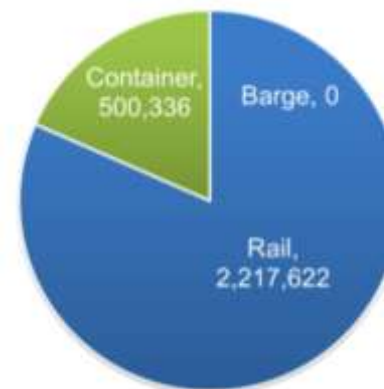
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Increased supply & demand requires increased connectivity between supply & demand

Kansas: Soybean Movements by Mode (Short Tons)



2013/14



2022/23

- Kansas has 4,855 miles of rail lines, 874 miles of interstate, and 140,687 miles of roadways.
- Kansas has 39 shuttle facilities, 2 soybean crush facilities, 12 ethanol facilities, 691 grain elevators, and 2 river elevators.

Source: "Farm to Market: A Soybean's Journey" (Funded by soybean checkoff)



Increased supply & demand requires increased connectivity between supply & demand

- U.S. rail carloadings of soybeans will increase 20% to approximately 240,000 rail cars by 2023. Barge loadings will increase 32% to over 21,000.
- China's annual soybean net imports increased by 24 million metric tons (882 million bushels) from 2006 through 2010. From 2010 through 2023, Chinese soybean net imports are expected to increase an additional 74 million metric tons (2.7 billion bushels) to 126 million metric tons (4.6 billion bushels).
- Soybean production in Brazil is expected to exceed 129 million metric tons (4.7 billion bushels) by 2023, up from 87 million metric tons (3.2 billion bushels) in 2013.
- Exports of soybeans from Brazil will expand to exceed 74 million metric tons (2.7 billion bushels) in 2023 from 45 million metric tons (1.7 billion bushels) in 2013.
- Infrastructure improvements in Brazil are estimated to reduce freight costs between 20 and 30 percent or \$40 per metric ton. Much more competitive with the U.S.

Source: "Farm to Market: A Soybean's Journey" (Funded by soybean checkoff)



The Soy Transportation Coalition – Farmer funded & farmer led

Established in 2007. Comprised of 13 state soybean organizations, the United Soybean Board, American Soybean Association.



Trucking Concerns

- Freight demand by all modes of transportation will increase from 18.5 billion tons in 2010 to 27.5 billion tons by 2040; Demand for trucking will increase from 12.5 billion tons to 18.5 billion – 50% increase *(Source: U.S. DOT)*
- Since 1980, miles of public roadways have increased by only 4.5% *(Source: U.S. DOT)*
- Widespread shortage of truck drivers
- Must be open to opportunities to get more out of the current system



Trucking Concerns

- “Safe Trucking Act” (Cong. Reid Ribble, R-WI); Would have allowed 6 axle, 91,000 lbs. semis on interstates vs. 5 axle, 80,000 lbs. limit; Defeated 187-236 in House (11-3-15)
- Effort in Kansas to allow 6 axle, 90,000 lbs. semis on state roads
 - Motorist safety
 - Shorter stopping distances (over 1 foot less)
 - Fewer trucks vs. status quo
 - Infrastructure wear & tear
 - Federal Bridge Formula compliant
 - $80,000 \text{ lbs.} \div 5 \text{ axles (18 tires)} = 4,444 \text{ lbs. per tire}$; $90,000 \text{ lbs.} \div 6 \text{ axles (22 tires)} = 4,090 \text{ lbs. per tire}$ (354 lbs. less per tire)
 - Cost savings & efficiency gains
 - 120 additional bushels of soybeans or wheat; 128 additional bushels of corn per load
 - ↓ gallons of fuel, carbon emissions
 - Trucking & Rail – Increasingly not interchangeable



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 state DOTs or counties in 13 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)*



Locks & Dams: Despite recent successes (WRRDA, IWT increase, additional \$), concern remains

- ***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).



Funding approach for locks & dams – A recipe for cost overruns, inefficiency

- **How we allocate money is just as important as how much money we allocate.**
 - Cost overruns & project delays should not be viewed as unintended consequences but rather as predictable outcomes.
 - We endeavor to construct expensive, multi-year infrastructure projects via unpredictable annual appropriations.
 - Could it ever be possible for the legislative process for improving locks & dams to resemble surface transportation?
 - Opportunities for alternative financing (private sector)?



Thank You

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Mike Steenhoek, Executive Director Soy Transportation Coalition

Mike Steenhoek is executive director of the Soy Transportation Coalition (STC), an initiative established in 2007 and comprised of the United Soybean Board, the American Soybean Association, and thirteen state soybean boards. The Soy Transportation Coalition exists to promote a cost effective, reliable, and competitive transportation system that serves the agriculture industry.

As executive director of the STC, Mike's responsibilities include communicating the initiative and the importance of transportation issues to soybean growers and processors; establishing and executing the organization's strategic direction; and building collaborations with other effected industries.

Mike is a member of the U.S. Department of Commerce's Advisory Committee on Supply Chain Competitiveness, the Transportation Research Board's Committee on Inland Water Transportation, and the Iowa Department of Transportation's Freight Advisory Council.

Prior to his work on the STC, Mike worked for United States Senator Charles Grassley (Iowa) for eight years – both in Washington, DC, and most recently in Des Moines, Iowa. In Washington, DC, Mike served as the Senator's scheduler and frequent speechwriter. In Des Moines, Mike served as Senator Grassley's director of economic development.

Mike received both his undergraduate degree and his Masters in Business Administration from the University of Iowa.