# FARMERS DELIVER VALUE THROUGH INFRASTRUCTURE RESEARCH

**The transport of corn and soybeans makes up a large portion of the cost to sellers in Indiana and around the world. Transportation delays due to poor infrastructure are responsible for almost half of the transportation costs. To remain competitive, Indiana corn and soybean farmers invest in research and projects supporting the improvement of Indiana's infrastructure, including roads, railways, bridges and more.**

Transportation costs make up about **$6** of the per ton cost of soybeans.

Of this, **$3.30** comes from transportation delays.[1]

## PROVIDING DATA TO SPUR IMPROVEMENTS

Indiana Soybean Alliance and Indiana Corn Marketing Council partner with Indiana University Public Policy Institute to fund research assessing rural road and bridge needs in Indiana. The 2021 and 2022 studies aimed to document road and bridge conditions in light of the General Assembly's actions to increase funding. The 2021 study was the first that includes data for all county highway departments (that was available) and set a statewide baseline for future studies. The 2022 data shows:

- While data generally showed improving ratings on average for chip seal and gravel, there were slight decreases in average ratings for asphalt and concrete pavements.
- Between 2021 and 2022, the number of counties reporting one or more pavement types rated as poor decreased from 37 to 33.
- Counties only reported 16 bridge decks, 20 superstructures, and 11 substructures were rated as failed. This is three fewer superstructures and two fewer substructures than reported in 2021.
- Counties reported 64 culverts rated as being in poor condition, two more than in 2021.

## PILOTING BRIDGE ALTERNATIVES

ISA invests funds into the Soybean Transportation Coalition, which is test piloting bridge alternatives in Indiana counties. Due to this partnership funding, White county is proceeding with two major bridge repairs.

| TOP 5 INNOVATIONS FOR RURAL BRIDGE REPLACEMENT AND REPAIR[2] | |
|---|---|
| 1 | Railroad Flatcar Bridges - Railroad flatcar bridges are quick and easy to install: they can be placed on existing abutments, are available in a variety of lengths, require minimal maintenance and are very economical. Cost savings: 50-60% Construction time: 15-25% faster |
| 2 | Geosynthetic Reinforced Soil-Integration Bridge System (GRS-IBS) |
| 3 | Vibratory H-Piling Drivers |
| 4 | Buried Soil Structures |
| 5 | All Steel Piers |

## SOY-BASED CONCRETE PROTECTANT BENEFITS INDIANA ROADS AND BRIDGES

Developed in Indiana, PoreShield™, is a soy-based concrete protectant that benefits the environment and the Indiana economy. Studies show it extends the life of concrete 5x-9x.

- PoreShield has been used by county highway departments to treat more than 80 bridges in Indiana and many others nationally.
- INDOT has used about 10,000 gallons in total, with the most recent project using 5,500 gallons to treat 10 miles of state highway pavement joints.
- PoreShield is safe to handle and store, won't harm ground or water with overspray and requires no PPE.[3]

Learn more about farmer contributions at **FarmersDeliver.com**

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[1] Impacts of the Transportation System on Soybeans, Corn, and Related Agricultural Products, Texas A&M Transportation Institute 2020 study
[2] Soy Transportation Coalition
[3] Poreshield.com

INDIANA CORN Marketing Council
INDIANA SOYBEAN ALLIANCE

THE FUTURE IS OURS TO GROW