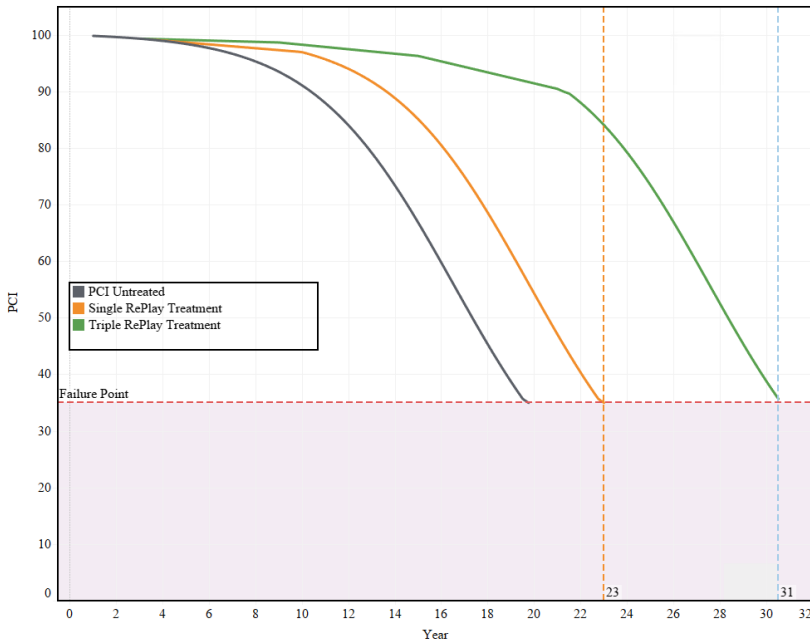


Third-Party Validation of Replay Pavement Preservation Agent



Service life estimates calculated for a single RePlay treatment (middle line) and three treatments (right line), compared with untreated control (left line)

SRF Consulting Group, in partnership with the Agricultural Utilization Research Institute and the MN Soybean Research and Promotion Council, conducted a third-party case study on the use of a soy-based asphalt preservation product. RePlay Agricultural Oil and Preservation Agent® (RePlay).

RePlay, a patented product created and manufactured by BioSpan Technologies, Inc., has been used as an asphalt maintenance product for over a decade in the city of Hutchinson, MN. The study included the analysis of over 10 years of data for determining deterioration rates, service life estimates and a life cycle analysis of Replay treated roads compared to untreated roads.

Deterioration rate of pavement by treatment group and age group:

REPLAY REDUCES ASPHALT ROAD CRACKING IN HUTCHINSON, MN MORE THAN 2X

THE STUDY DETERMINED AN EXTENSION OF ROAD SERVICE LIFE OF 3-11 YEARS IS EXPECTED FOR REPLAY TREATED ROADS

Treatment Group	0 to 5 years	5 to 10 years	More than 10
Untreated	-2.25	-1.76	-1.45
RePlay	-0.8	-0.45	-0.71
Reduction Rate (Untreated / Re-Play)	2.8x	4.4x	2.0x
Chip Seal	-1.19	-1.44	-1.07



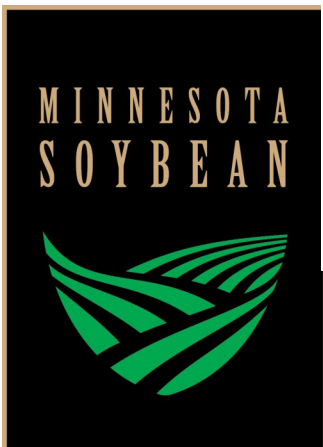
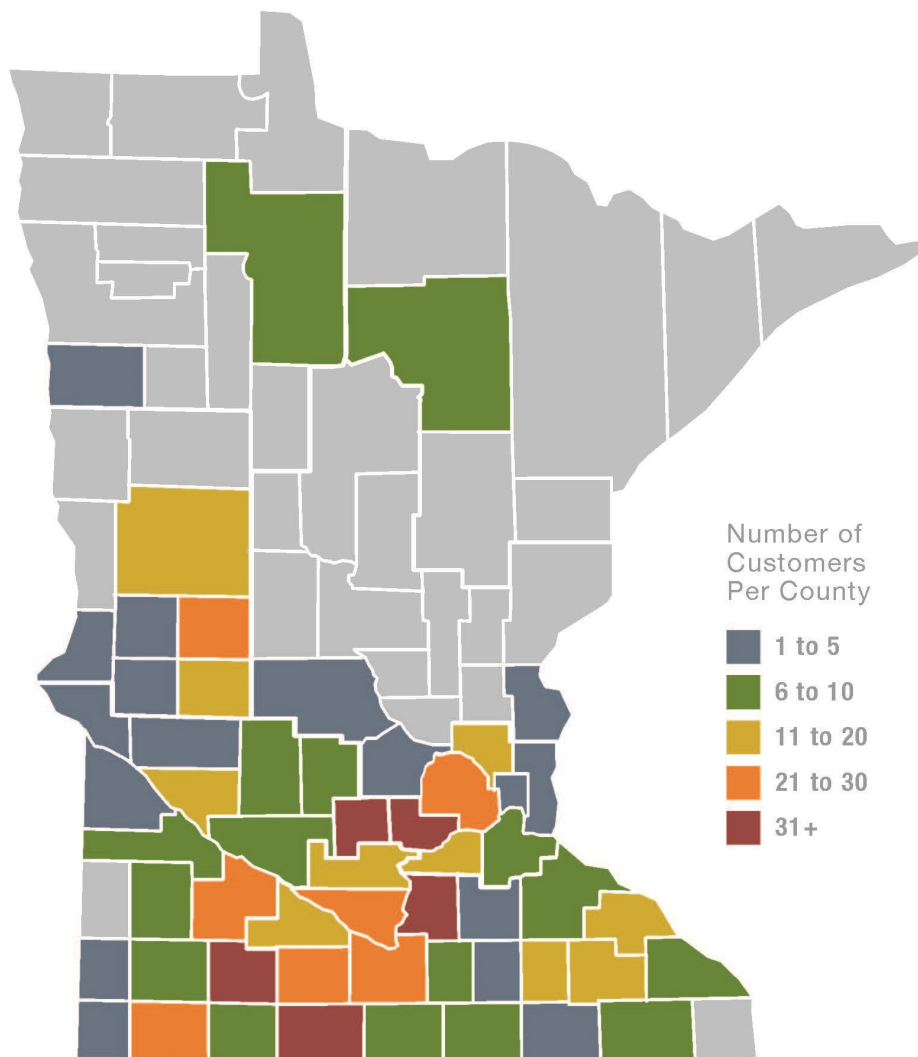
Agricultural Utilization Research Institute



Third-Party Validation
of Replay Pavement
Preservation Agent

Biobased Road Sealant Customers in Minnesota, 2018-2021

RePLAY agricultural oil sealant and preservation agent has been used in 133 roadway projects across 37 Minnesota counties between 2018 and 2021. The 88 percent biobased solution is quick to apply, reduces maintenance and extends the life of a roadway. From a care center in Worthington to the Mayo Clinic in Rochester, nonprofit organizations, city governments and private companies are realizing the benefits of biobased road sealants.



Agricultural Utilization Research Institute