SOY-BASED ASPHALT ROOF REJUVENATES



How did this project start?

The project sponsored by the Minnesota Soybean Research & Promotion Council (MSR&PC) is an effort to educate consumers on the benefits of soy-based roofing rejuvenates.

Several soy-based roofing rejuvenates have entered the market in the past few years. Consumers are largely unaware of these products in protecting asphalt shingles and extending their life. The impact of using soybean oil in roofing (shingle) markets provides consumers an option to prevent roofing materials from needing to be replaced at an earlier age. The treatment restores flexibility to asphalt shingles within 72 hours, allowing the roof to freely expand and contract.



Credit: Jaime and Mathew Schad

According to industry estimates, about 12 million tons of asphalt roof shingles in the U.S. wind up in landfills each year. Recycling asphalt shingles is only partially effective because it is hard to separate the non-recyclable materials (like wood and nails) during the process.

In 2024, demonstrations were hosted by the Agricultural Utilization Research Institute (AURI) and MSR&PC to discuss the environmental advantages of using a soy methyl ester emulsion (SMEE) on roof shingles. The companies involved in the demonstrations were Roof Maxx and RoofRestor. Another company, Colorbiotics (Peak 301), was involved in the project work. The soy-based roof rejuvenate product has been shown to be effective in extending the life of shingles.

According to a recent study by The Ohio State University, approximately seven percent of U.S. roof shingles are replaced each year. The study found that 5.6 billion pounds of landfill waste could be avoided each year, plus 1.1 million metric tons of carbon dioxide equivalent in emissions if only one percent of single-family homes (about 15 percent of annual replacements) applied a SMEE product to their roof shingles.



