

Using Guayule to Build Farm Resiliency in Pinal County

In 2018, Bridgestone Americas, Environmental Defense Fund (EDF), and a Maricopa Stanfield Irrigation & Drainage District (MSIDD) producer initiated a pilot project to test guayule production in Pinal County, AZ. As a low-water use, nearly pesticide free native desert shrub, guayule could be the foundation of the future farm economy in Pinal County and help to solve the supply-demand imbalance of water in Central Arizona.

The 25-acre pilot project was designed to provide a learning opportunity by testing commercial-scale guayule production, improving local growers' expertise and receptivity to guayule, and testing the concept of reduced water use by transitioning to guayule from alfalfa.



Organizations involved with this project include: Bridgestone Americas, Environmental Defense Fund, Maricopa-Stanfield Irrigation and Drainage District area producer, Encourage Capital

Funding partners include: Bridgestone Americas

KEY PROJECT STATS



Increased resiliency of the MSIDD farming community



Significant potential water savings: 100,000 converted acres = 150,000 acre feet of water saved



Photo © Bridgestone Americas. Source: Tire Business

PROJECT SUMMARY

Transitioning to less water intensive crops is a promising approach to on-farm water conservation in Pinal County, AZ. By converting a portion of the relatively water intensive alfalfa acreage to lower water use crops, growers could reduce water demand while keeping irrigated land in production. Guayule uses approximately 57% less water than alfalfa and is mainly used in rubber manufacturing, with potential uses as feedstock for renewable energy, green chemical manufacturing, and more.

In 2018, funding from Bridgestone Americas enabled EDF and a local producer in the Maricopa-Stanfield Irrigation and Drainage District Area to pilot 25 acres of guayule production. The pilot project provided grower compensation, cost sharing, and technical and equipment support to reduce operational and local market demand risks faced by pilot participants.

Currently, an expanded second phase of the project is under development. This second phase will include up to 600 acres of guayule production using federal conservation program funding. It will serve as a platform from which Pinal County, AZ can build a commercial-scale guayule industry.

KEY PROJECT BENEFIT

The initial phase of the pilot offered important lessons in guayule production in the region, including crop establishment, irrigation needs/timing, and pest and weed management. Based on a preliminary analysis, the Environmental Defense Fund and Encourage Capital estimate that the conversion of 100,000 acres in Pinal County (44% of harvested acres in the county) could save over 150,000 acre-feet of water, or 15% of current usage. Water conservation at this level has the potential to support a long-term future for farming in Pinal County.

For more information please visit: fcasolutions.org/WACCprojects

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