

# Sorghum Sustains

Findings from the KansCAT Database



## Project Summary

Few farmers have the information or ability to quantify the effectiveness of various farm practices in improving soil health and water quality. This project, titled “Community and Market Partnerships to leverage the creation and application of a technology platform, KansCAT, for conservation of soil and water systems in Kansas,” consists of three objectives aimed at addressing this problem. These objectives include 1) deploying a database for storing and assessing practice information, 2) increasing literacy of farmers and conservation Partners using this information and 3) leveraging conservation practices for value in carbon-focused ethanol markets.

Partners in this project include National Sorghum Producers, Natural Resources Conservation Service, United Sorghum Checkoff Program, Kansas Sorghum, Kansas Department of Agriculture, Kansas State University, Conestoga Energy Partners, Western Plains Energy, and Field to Market. In addition to Partners, the project surveyed numerous farmers growing crops on approximately 80,000 acres covering 79 percent of the U.S. sorghum ethanol demand shed and 100 percent of the Kansas ethanol demand shed.

The project saw dozens of educational pieces disseminated to various stakeholder groups including and especially farmers. Young and beginning farmers in particular were targeted for education that would drive positive natural resource outcomes. In keeping with this, social media and podcasts were the centerpiece of the project's outreach effort. To learn more, visit <https://sorghumgrowers.com/kanscat/>.

## Findings

In addition to the need to understand current practices to improve environmental outcomes in the future, it is important to know farmers' footprints given their growing importance in environmental services markets. For example, nitrogen application and energy usage are just two of many important variables under the California Low Carbon Fuel Standard, the framework under which most sorghum ethanol is marketed.



Key findings from the project include a weighted average nitrogen application rate (for irrigated and dryland acres) of **0.75 pounds per bushel**, a minimum tillage adoption rate of **89.6 percent** and a dryland farming practice adoption rate of **93.6 percent**. These values make Kansas sorghum farmers among the best in the U.S. in terms of conservation and sustainability practice adoption and environmental stewardship. In particular, few farmers till less than those in Kansas, and this adds to air quality, water quality and soil carbon sequestration in Kansas.

## Exposure for Young Conservationists

In addition to targeting young farmers for education that would drive positive natural resource outcomes, this project featured a landmark partnership between National Sorghum Producers, Kansas Sorghum, and Kansas State University. The partnership created the Conservation and Sustainability Fellowship which saw two outstanding young conservationists work directly with participating farmers to collect information for the KansCAT database. These fellows were managed day-to-day by Kansas Sorghum and upon completing their fellowship took an active role in mentoring other young conservationists at Kansas State University.

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