



A corn field (left) is buffered by native grasses (right) to protect the nearby Green River. © Mike Wilkinson

Sustainable Agriculture

Kentucky chapter develops new strategy

The Nature Conservancy's Shared Conservation Agenda prioritizes the sustainable production of food. In Kentucky, TNC is delving deeper into the agricultural arena, building new partnerships and expanding work in sustainable agriculture.

"Conservation science has been focusing on soil health at a national level," says Kim Barton, agriculture program specialist for the Kentucky chapter. "While there is a wealth of knowledge at a national level, we wanted to engage with local producers to share knowledge and develop research around soil health in Kentucky."

To capitalize upon the promising science of soil health and potential opportunities to collaborate with key industry partners, the Kentucky chapter developed a sustainable agriculture strategy with colleagues in the

Tennessee chapter.

"We all realized that, looking at Kentucky and Tennessee, we've got a lot of agricultural country," says Mike Hensley, Green River project director



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for the Kentucky chapter. "By working with our farmers and the industries they supply, there are ways we can help accelerate education and adoption

of promising new approaches to sustainable agriculture, at a scale we've never worked before."

The chapters came up with a simple plan that focused on the science behind soil health and the agriculture supply chain. In both areas, Hensley says, the chapters felt they could make a real difference.

"Everybody realizes that if sustainable practices can be implemented and result in better yield, lower production costs, and healthy, resilient soils, it's a win-win," he says. "Having healthy soil is good for our farmers, for reasons of productivity and profitability. Taking proactive steps to protect and build healthy farm soils is also good for water quality and wildlife. Healthy soil practices prevent soil erosion and keep nutrients where they belong."

Sustainable agricultural practices

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The Nature Conservancy works with farmers to advance sustainable agriculture. © Mike Wilkinson



13 million

Acres of farms in Kentucky, where farmers lead the way in sustainable practices like no-till farming and cover cropping.

Healthy Soil Practices



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No-till farming is a way of growing crops without disturbing the soil. This method can decrease soil erosion, increase healthy microorganisms and organic matter in the soil, and improve soil's ability to retain moisture. The method was first popularized by Kentucky farmer Harry Young, Jr., who planted the nation's first commercial no-till crop in 1962. Today, 80 percent of Kentucky's soybean acreage, 70 percent of its wheat acreage, and 50 percent of its corn acreage are produced using no-till farming.

Another important farming technique to promote soil health is cover cropping. Leaving fields bare after the harvest of cash crops increases soil erosion and nutrient loss. Cover crops are planted after cash crops are harvested. Cover crops hold the soil in place, increase water infiltration and increase soil productivity.

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such as no-till farming and crop diversification have caught on with many farmers. But having stronger science and more localized data showing that such practices work, environmentally and economically, can convince other farmers to use them.

"In Kentucky, we felt like the science behind soil health could be a lot more robust," Hensley says. "At every local field day and workshop, our farmers are telling us they'd be more likely to try new practices if there were more data showing what works. And we're listening to them and taking action."

For the second strategy, TNC partnered with the University of Kentucky's Community and Economic Development Initiative of Kentucky (CEDIK) to better understand the agricultural supply chain relationships in Kentucky.

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and fertilizer in the state of Kentucky and where their final products are going."

Through both parts of the strategy, TNC is going deeper into a new area of work that is critical for people and nature. Working with new partners, the Kentucky and Tennessee chapters aim to improve farm profitability while improving key environmental outcomes like clean water.

"We're excited to listen and learn from our agricultural community," says Hensley. "Working with farmers and other partners will help us better understand current processes and how we can contribute to a better future for all."

"We evaluated the supply chains from input to final product," says Barton. "We looked at four different commodities—corn, soybeans, beef and poultry. The end results showed us where farmers purchase their inputs like seed

and fertilizer in the state of Kentucky and where their final products are going."