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## How to save the Earth: Look at the ground beneath your feet

By Nick Goeser Apr 22, 2016

We often hear that every day should be celebrated as Earth Day, but there's one group who actually lives that. They make it possible for you to eat your morning cereal and pack a nutritious lunch for your children. We ask them to safely feed a growing world, to continually grow more with less, and perform these tasks with increasing scrutiny. With innovation and industriousness, they rise to this challenge, without seeking recognition.

They are America's farmers. And if you think they don't care about the Earth, think again.

Here in St. Louis, an extraordinary national effort is underway called the Soil Health Partnership. It is a data-driven initiative of the National Corn Growers Association, with support from Monsanto and the Walton Family Foundation, as well as technical support from The Nature Conservancy and other environmental groups. This unlikely partnership brings together diverse organizations to work toward the common goal of improving soil health.

Why should soil health matter to St. Louis this Earth Day? Protecting and improving our soil, it turns out, is one of the single best options we have for carbon mitigation — and it is cost effective, too. There is a mind-blowing amount of carbon stored in the top few meters of the Earth's soil. Disturbing that soil, be it through tilling farmland or commercial development, releases carbon into the atmosphere.

Through a meaningful agricultural transformation, farmers are working to mitigate climate change by rejuvenating soil and turning it back into a carbon sink.

Our organization is working to identify, test and measure farm management practices that improve soil health and benefit farmers. We have 65 farmer-driven test sites in eight Midwestern states where farmers increase the use of sustainable practices.

The “next generation” of sustainable farm practices add innovation to the pages of our ancestors’ agricultural playbook. Innovations include the optimal use of cover crops. A cover crop keeps plants growing in the field year-round, returning the land to a more natural state. These plants, like cereal rye, radishes and clover, can slow soil erosion and improve many aspects of soil under our feet. They make soil healthy again by adding organic matter. They make soil more resistant to drought, and more resilient to floods. There is evidence that they also improve crop yields and reduce variability — something we hope our data will back up.

Another benefit of cover crops is that they attract pollinators, like bees, and can even provide refuge for migrating birds.

John James Audubon once said, “A true conservationist is a man who knows that the world is not given by his fathers, but borrowed from his children.” I’m exhilarated to see more farmers not just believing this, but living it. Each day, our farmers tend to and nurture the soil. With the research of the Soil Health Partnership, it is my personal hope that we will gain momentum, and more farmers will integrate sustainable practices — confident that they are preserving the environment for future generations, while still providing food, fuel and fiber for the current one.

*Nick Goeser is a soil scientist who directs the Soil Health Partnership (SoilHealthPartnership.org) and manages soil health and sustainability for the National Corn Growers Association. Both organizations are based in Chesterfield.*