

5 Minutes with...

Kristin Ohlson

Author of *The Soil Will Save Us: How Scientists, Farmers and Foodies are Healing the Soil to Save the Planet*



Is “carbon sequestration” a term you feel people who care about the environment should be more familiar with?

I do. One of the biggest problems we have when we talk about global warming is that we tend only to talk about emissions. We don't look at the other side of the equation, which is this legacy load of carbon dioxide in the atmosphere, and what we can do to reduce that load through carbon sequestration. A free, natural technology exists that involves photosynthesis and the relationship that plants have with microorganisms—it's a process that actually takes carbon from the air and puts it into the soil, where it's useful.

These organisms have been doing this for millions and millions of years.

And humans have been *interfering* with this process for thousands of years, through what we think of as benign agricultural activities, such as tilling the soil. People have yet to grasp that there is this partnership, this basic relationship in nature between plants and soil microorganisms. Once we understand that this is really the basis for all life on earth, we can start to think about ways to fix it, and figure out how to make food for ourselves without such a damaging impact.

What is actually happening when farms put chemicals into the soil?

The plants are basically drinking an energy drink. This process is doing damage to the soil because plants have an established feeding relationship with the organisms. When chemical fertilizers are applied, it disrupts that feeding relationship. It makes the communities of soil organisms less vigorous. Besides eating carbon and excreting it, soil microorganisms also

make a kind of glue and create tiny “habitats” within the soil, a honeycomb structure that I like to describe as a lot of cups and saucers. This in turn enables soil to hold the water it gets. You know, drought doesn't mean it never rains—part of drought involves a soil structure that lets water just drain away.

So by following carbon sequestration practices, a farmer can expect to reduce expenses, improve yields and maybe work a little less?

That has already been the experience for many farmers. They're making a very good living by paying attention to the ecosystem within the soil. And there are a lot of young farmers getting into the business with the goal of making food, working with the land and saving the planet.

Franklin Roosevelt said the history of nations is written in the way they care for their soil. What do you think our history will look like if we don't change the way we farm?

I've been thinking a lot lately about all these dystopian movies that project a future of people living in crowded, horrible places where you don't see anything green. I wonder what they are eating! So much of what we do now fights against the processes that created our world and our species. I fear that our future is bleak if we don't understand that we have to work with nature, instead of fighting it. I'd prefer to think our future will be green and healthy. And bursting with life. **EDGE**

Editor's Note: Kristin Ohlson is an author and journalist who co-authored the *New York Times* best-seller *Kabul Beauty School*. *The Soil Will Save Us* was published in 2014 by Rodale Books. For another 5 Minutes with Kristin, log onto **edgemonline.com** and read the extended version of this Q&A.