

# Soil a Surprisingly Big Contributor to Climate Change

*Ohlson says soil misuse accounts for 30% of carbon emissions.*

Deborah Abrams Kaplan | May 22, 2014

DriveTheDistrict.com



Most of us assume that fossil fuels are the main culprits behind global warming, and since the 1950s, that's probably true.

But for thousands of years before then, farming and ranching practices led to the loss of up to 80% of the soil's carbon, according to Kristin Ohlson, author of the new book, [\*The Soil Will Save Us: How Scientists, Farmers and Foodies are Healing the Soil to Save the Planet\*](#). Even now, she says, 30% of carbon emissions are from land misuse. While soil management can't reverse the amount of carbon dioxide now in the atmosphere, it can reverse soil conditions, reducing the release of more carbon into the air.

If it all sounds like a bunch of voodoo science, bear with us. Ohlson says it's all about soil health and multiplying the microorganisms living there.

The best soil is rich, black and crumbly. But through constant tilling, its structure becomes damaged, releasing carbon (which combines with oxygen and becomes carbon dioxide), into the air.

“I used to love driving past fields where people were plowing,” said Ohlson, whose childhood memories include watching the Amish plowing with their Clydesdale horses. But now she now

sees the negative environmental impact instead.

HOW SCIENTISTS, FARMERS, AND  
FOODIES ARE HEALING THE SOIL  
TO SAVE THE PLANET

the soil  
will save us

KRISTIN OHLSON

The carbon farming movement is small but growing.

Carbon farmers don't plow or till the soil. They make very small holes to insert seeds without disturbing the soil's structure. "[Soil health] is built up is through photosynthesis – plants pulling carbon dioxide out of the air, breaking it down into carbon sugars and carbon for its own consumption," she said. Some of these carbon sugars migrate into the roots, feeding microorganisms like pigs at a trough. In return, the microorganisms release nutrients near a plant's roots. It's a symbiotic partnership.

Composting on a grand scale is another way of improving soil health. Keeping the ground blanketed with cover crops, plant residue and decaying leaves increases yield and decreases erosion. And the microorganisms and worms love it. This works in your own garden and lawn too.

How can you help? "It starts with the small growers, and buying from [carbon-friendly] farmers at your local farmer's market, which ensures that their environmental work will continue," Ohlson said.

<http://www.drivethedistrict.com/2014/05/22/soil-a-surprisingly-big-contributor-to-climate-change/>