



# **Soil Carbon Sequestration Update**

July-August 2019

# - Soil Champions and Super Heroes -

Breakthrough Strategies & Solutions profiles Soil Carbon Champions. <a href="https://www.breakthroughstrategiesandsolutions.com/soil-champions">https://www.breakthroughstrategiesandsolutions.com/soil-champions</a>
If you have a soil carbon champion you'd like to nominate please let us know <a href="here">here</a>. We would love to promote their work!

Breakthrough Strategies and Solutions also profiles Soil Carbon Success Stories. These are farms or projects that have a track record of sequestering carbon.

https://www.breakthroughstrategiesandsolutions.com/success-stories

If you have an SCS Success Story you'd like to nominate please let us know here.

Green America profiles Soil Super Heroes <a href="https://www.greenamerica.org/soilsuperheroes">https://www.greenamerica.org/soilsuperheroes</a>

# - Research Developments on Climate & Land -

The financial value of avoided CO2 emissions provided by sequestered soil organic carbon is in the trillions - just in the United States. This report focuses on ecosystem services. https://www.mdpi.com/2079-9276/8/3/153/htm

IPCC releases alarming Climate & Land report. The new IPCC report estimates that serious changes in forestry and agriculture to curtail deforestation and improve soil management could reduce global emissions by 5% to 20% <a href="https://www.ipcc.ch/report/srccl/">https://www.ipcc.ch/report/srccl/</a>

Tree planting has mind-blowing potential for addressing the climate threat <a href="https://www.theguardian.com/environment/2019/jul/04/planting-billions-trees-best-tackle-climate-crisis-scientists-canopy-emissions">https://www.theguardian.com/environment/2019/jul/04/planting-billions-trees-best-tackle-climate-crisis-scientists-canopy-emissions</a>

Compost key to sequestering carbon in soil - a new study from University of California/Davis <a href="https://www.sciencedaily.com/releases/2019/08/190814161818.htm">https://www.sciencedaily.com/releases/2019/08/190814161818.htm</a>

Soil carbon sequestration may increase through atmospheric nitrogen enrichment. This study suggests that N enrichment may increase C sequestration both in surface and subsurface layers, by reducing C loss through mineralization.

https://peerj.com/articles/7130.pdf

Protecting existing forests is critical for sequestering carbon

### https://www.frontiersin.org/articles/10.3389/ffgc.2019.00027/full

Organic Farming Research Foundation (OFRF) has released the ninth topic in their immensely popular Soil Health and Organic Farming Series of guidebooks and webinars <a href="https://ofrf.org/soil-health-and-organic-farming-ecological-approach">https://ofrf.org/soil-health-and-organic-farming-ecological-approach</a>

Brazilian Coalition on Climate, Forests, and Agriculture issues White Paper on potential of carbon markets and payments to shift management of land.

http://www.coalizaobr.com.br/home/index.php/en/news/675-white-paper-the-potential-of-carbon-markets-and-results-based-payments-for-the-post-2020-period

UNEP releases report: The Potential of Carbon Sequestration in the Soil http://environmentlive.unep.org/foresight

Reducing tillage, integrating legumes into crop rotations, and growing perennial grasses could minimize SOC loss and have the potential to improve soil health and agroecosystem resilience under projected climate warming of agricultural soils.

https://www.nature.com/articles/s41598-019-48237-7

Mapping cultivated peatlands to determine priorities for protection https://www.tandfonline.com/doi/full/10.1080/17583004.2018.1557990

# - Measuring Carbon in Soils -

OpenTEAM launches to help farmers globally

https://markets.businessinsider.com/news/stocks/global-collaborative-launches-openteam-the-first-open-source-technology-ecosystem-in-the-world-to-address-soil-health-and-mitigate-climate-change-1028403719

Australia requires farm audits to confirm soil carbon sequestration <a href="https://www.bootstrap.net.au/post/government-audits-carbon-farming-project">https://www.bootstrap.net.au/post/government-audits-carbon-farming-project</a>

# - Programs and Tools for Farmers -

MESA provides workshops for regenerative organic farmers in the US and globally <a href="https://apply.mesaprogram.org/stewards/host-listings/">https://apply.mesaprogram.org/stewards/host-listings/</a>

Soil Health Academy training programs

https://soilhealthacademy.org/upcoming-schools

Kiss the Ground training and support programs for farmers

https://kisstheground.com/farmland/

Regenerative Farming fellowship opportunity

https://www.stonebarnscenter.org/engage/for-farmers/regenerative-farming-fellowship/

IFOAM offers courses for regenerative, organic farmers - UK

https://www.ifoam.bio/en/regenerative-agriculture-course-1

Beginner farmer and ranchers training offered

https://nesfp.org/farmer-training/incubator-farm/technical-assistance

Sustainable farming job openings

https://eco-farm.org/jobs?items\_per\_page=100

#### - New Initiatives -

Land Core promotes market-based approaches to regenerative agriculture and a platform for land leasing to farmers.

https://www.landcoreusa.org

Shell Oil promotes solar energy and regenerative land management through Silicon Ranch <a href="https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008">https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008</a> <a href="https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008">https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008</a> <a href="https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008">https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008</a> <a href="https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008">https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008">https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008</a> <a href="https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008">https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008</a> <a href="https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008">https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008</a> <a href="https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008">https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008</a> <a href="https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008">https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008</a> <a href="https://www.prnewswire.com/news-releases/silicon-ranch-launches-regenerative-energy-3008">https://www.prnewswire.com/news-releases/silicon-ranches-regenerative-energy-3008</a> <a href="https://www.prnewswire.com/news-releases/silicon-ranches-regenerative-energy-anergy-anergy-anergy-anergy-anergy-anergy-anergy-anergy-anergy

Native American tribes move forward with carbon farming projects

http://nativenewsonline.net/currents/environmental-activist-winona-laduke-plans-to-revitalize -hemp-as-an-emerging-enterprise-to-create-a-green-economy-for-the-next-generation-of-nativ e-american-farmers/ and

https://www.indiancarbon.org/about-us/

Thailand focuses on soil carbon sequestration.

http://www.fao.org/global-soil-partnership/resources/highlights/detail/en/c/1191840/

California looks for shovel ready carbon sequestration solutions through land.

https://www.feedstuffs.com/news/muir-institute-project-find-shovel-ready-carbon-sequestration-solutions

New project on carbon farming is launched in India

https://regenerationinternational.org/2019/05/09/new-project-in-carbon-farming-launched-in-india/

# - Corporate Leadership for Healthy Soils -

Patagonia goes all in for regenerative, organic agriculture <a href="https://www.businessinsider.com/patagonia-global-warming-solutions-2019-4">https://www.businessinsider.com/patagonia-global-warming-solutions-2019-4</a>

Stoneyfield promotes regenerative agriculture through smart farms.

https://www.unionleader.com/news/environment/stonyfield-to-launch-smart-farm-tech-initiative-to-retain-more/article\_cef091f8-7725-5455-8875-0fbcfe59aa61.html

Climate Collaborative helps supply chains do more to advance soil carbon sequestration. https://www.climatecollaborative.com/agriculture

### - Policy -

Just this year, at least 10 states have introduced new soil management policies. <a href="https://www.huffpost.com/entry/soil-health-farmer-drought-flood-climate\_b\_5d60262ae4b0c4ac15d42f42">https://www.huffpost.com/entry/soil-health-farmer-drought-flood-climate\_b\_5d60262ae4b0c4ac15d42f42</a>

Presidential candidates begin embracing agricultural solutions to climate change <a href="https://insideclimatenews.org/news/19072019/agriculture-climate-solution-election-2020-bide-n-warren-sanders-soil-carbon-conservation?utm\_campaign=website&utm\_source=email\_promo&utm\_medium=email</a>

#### - Recent Media -

David Montgomery provides an excellent summary of positive developments on soil organic carbon and its role in addressing the climate threat. https://phys.org/news/2019-08-soil-climate.html

4 Ways to Use Land to Fight Climate Change - a good review of the IPCC report <a href="https://www.vox.com/science-and-health/2019/8/9/20791617/climate-report-2019-un-land-ip-cc-solutions">https://www.vox.com/science-and-health/2019/8/9/20791617/climate-report-2019-un-land-ip-cc-solutions</a>

Is Carbon Sequestration an Effective Way to Combat Climate Change? <a href="https://www.forbes.com/sites/quora/2019/08/13/is-carbon-sequestration-an-effective-way-to-combat-climate-change/#5279a25c70a9">https://www.forbes.com/sites/quora/2019/08/13/is-carbon-sequestration-an-effective-way-to-combat-climate-change/#5279a25c70a9</a>

California farmer responds to the IPCC Climate and Land report <a href="https://www.nytimes.com/2019/08/09/opinion/climate-change-food-report.html?action=click&module=Opinion&pgtype=Homepage/">https://www.nytimes.com/2019/08/09/opinion/climate-change-food-report.html?action=click&module=Opinion&pgtype=Homepage/</a>

World food security at risk due to climate impacts on land and water

### https://news.un.org/en/story/2019/08/1043921

Overview of key actions needed to address soil loss and rising global food insecurity <a href="https://www.nytimes.com/2019/08/09/climate/climate-change-food.html">https://www.nytimes.com/2019/08/09/climate/climate-change-food.html</a>

For Climate Smart Farmers, Carbon Solution is in the Soil <a href="https://www.eenews.net/stories/1060681577">https://www.eenews.net/stories/1060681577</a>

Four Ways to Be Smarter about Land Use To Fight Climate Change <a href="https://www.vox.com/science-and-health/2019/8/9/20791617/climate-report-2019-un-land-ip-cc-solutions">https://www.vox.com/science-and-health/2019/8/9/20791617/climate-report-2019-un-land-ip-cc-solutions</a>

For a Sustainable Climate and Food System, Regenerative Agriculture Is the Key <a href="http://yesmagazine.com/soil-farming-greenhouse-IPCC-2019-08102019">http://yesmagazine.com/soil-farming-greenhouse-IPCC-2019-08102019</a>

Soil Health Can Combat Climate Change from the Ground Up <a href="https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2019/08/23/soil-health-can-combat-climate-change-from-the-ground-up">https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2019/08/23/soil-health-can-combat-climate-change-from-the-ground-up</a>

#### - Conferences -

Soil Organic Matter in a Stressed World - Australia Symposium <a href="http://www.som2019.org/">http://www.som2019.org/</a>

Sustainable Landscapes and Commodities Forum (20th-21st November 2019, London) <a href="https://www.innovationforum.co.uk/conferences/sustainable-landscapes">https://www.innovationforum.co.uk/conferences/sustainable-landscapes</a>