



Soil Carbon Sequestration Update

May 2021 - Soil Carbon Sequestration Update

Research

Soil moisture plays a pivotal role in determining how much carbon is absorbed by terrestrial ecosystems. A new paper by Caltech researchers and published in *Nature* describes the dynamics.

<https://www.miragenews.com/soil-moisture-drives-year-to-year-change-in-538014/>
<https://www.nature.com/articles/s41586-021-03325-5/metrics>

The Australian Academy of Science declares that it is virtually impossible to keep global warming under 1.5C while other respected climate scientists debate the claim.. All acknowledge that substantial carbon removal from the atmosphere will be vital.

<https://www.theguardian.com/environment/2021/apr/03/every-choice-matters-can-we-cling-to-hope-of-avoiding-15c-heating>

Rising carbon dioxide emissions may have unexpected impacts on the ability of soils and plants to absorb carbon. One result of this research is to point anew to the critical need to conserve and replenish grasslands as large scale sinks for carbon.

<https://news.stanford.edu/press-releases/2021/03/24/one-earths-biggeks-overestimated/>

We are underestimating how fast we must transform our energy and land systems.

https://52a87f3e-7945-4bb1-abbf-9aa66cd4e93e.filesusr.com/ugd/148cb0_999447b69dde477a83b500dde076fbc6.pdf

The Day One Project released a new report including analysis about the role of agriculture in strengthening the climate, food security, health, and economic opportunity.

[The Resilient Agriculture and Food Systems Project report](#)

A new paper shows the benefits of coastal restoration in Louisiana and positive impacts for soil carbon storage.

<https://phys.org/news/2021-04-paper-benefits-louisiana-coastal-soil.html>

Several research teams are exploring the potential of burying carbon through selective deep plowing and essentially the burying of carbon at a deeper level.

<https://phys.org/news/2021-05-carbon-potential-sequestration-grass-productivity.html>

Key Organizations and Resources

White Buffalo Land Trust practices, promotes, and develops systems of regenerative agriculture for local, regional, and global impact. A growing number of people point to this project as a model of holistic transformation across a significant landscape.

<https://www.whitebuffalolandtrust.org/>

The Soil Health Partnership works primarily with large commodity producers to promote soil health. <https://www.soilhealthpartnership.org/we-are-shp/>

Croatian Institute works to support investors committed to regenerating the land, addressing racial and economic inequity, and supporting ecological resilience. You can access key webinars and conversations on their website.

<https://www.croatianconversations.org/>

Ecdysis Foundation is doing holistic research to support regenerative agriculture with a special focus on almond farms in California. <https://www.ecdysis.bio/>

Provocative Articles, Papers, and Opinion Editorials on the Field

Is Agroecology Being Co-opted By Big Ag?

<https://civileats.com/2021/04/20/is-agroecology-being-co-opted-by-big-ag/>

Regenerative Agriculture Needs a Reckoning

<https://thecounter.org/regenerative-agriculture-racial-equity-climate-change-carbon-farming-environmental-issues/>

The Alliance for Food Sovereignty in Africa (AFSA) is championing agroecology and transformation of food systems in Africa. They recently submitted a letter to the Special Envoy of the UN General Secretary stating their concerns and criticisms as well as terms of engagement for the upcoming UN Food Summit.

<https://afsafrika.org/african-civil-society-refuses-to-engage-with-unfss-without-radical-change/>

After Six Months of Non-Violent Struggle, Farmers in India Should Move Towards Agro-Ecology and Broader Unity. Click [here](#) for this opinion piece.

This paper examines the history of regenerative agriculture and competing definitions of the field. It puts forth a critique of exaggerated claims and of the lack of focus on how regenerative agriculture supports biodiversity, among other things. Supported by CGIAR and the NWO-WOTRO Science for Global Development.

[Development.https://journals.sagepub.com/doi/pdf/10.1177/0030727021998063](https://journals.sagepub.com/doi/pdf/10.1177/0030727021998063)

The United Nations Climate Change issued a brief in April on regenerative agriculture.

<https://unfccc.int/documents/273791>

Action on Policy

Currently, the American Jobs Plan Act has less than \$5 billion allocated to agriculture-related programs of the \$2.2 trillion proposed by the Biden Administration. That's just 0.25 percent of the total. However, in recent weeks, leaders of the House and Senate Agriculture Committees have come together around a proposal for \$200 billion in funding for climate-resilient agriculture, including key components of the leading ag and soils legislation on the table. Over 450 organizations signed a letter calling on Congressional leadership to invest more than \$200 billion over ten years to bolster farm bill conservation, research, renewable energy, forestry, and regional food system and supply chain resilience programs as part of the pending climate change and infrastructure package.

<https://sustainableagriculture.net/wp-content/uploads/2021/05/ARA-CSA-AJPA-Sign-on-Letter-FINAL.pdf>

The European Union is nearing closure on its Common Agricultural Program details. The European Commission has set the carbon farming initiative into motion.

**https://ec.europa.eu/clima/news/commission-sets-carbon-farming-initiative-motion_en
<https://www.reuters.com/business/sustainable-business/after-three-years-haggling-eu-farm-deal-expected-this-week-2021-05-26/>**

Webinars and Conferences

There are numerous pre-summit dialogues in the run-up to the July 2021 UN Food Systems Summit. See here for opportunities to engage.

<https://www.un.org/en/food-systems-summit/dialogues>

The Association for Temperate Agroforestry and Savanna Institute are co-hosting a conference on agroforestry and carbon drawdown.

<https://www.midwestfarmreport.com/2021/05/02/agroforestry-for-carbon-drawdown/>

The Natural Resources Conservation Service (NRCS) of the US Department of Agriculture hosts monthly webinars on conservation management issues for farmers, ranchers and foresters.

<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/ceap/?cid=nrcseprd1576043>

ReFed works on the intersection of food waste, composting, and healthy soils. They are launching a new webinar series.

https://refed.zoom.us/webinar/register/WN_Ma4_puxMSZC3EVNPMmE_g?mc_cid=891d9b8636&mc_eid=d916260199

Cornell University is hosting a new webinar series on agroforestry

<https://smallfarms.cornell.edu/2021/05/agroforestry-webinar-series-will-showcase-new-research-techniques-and-more/>

FAO holds periodic webinars on agroecology.

<http://www.fao.org/agroecology/database/detail/en/c/1401629/>

CGIAR hosts webinar on agroecology and climate mitigation and adaptation in low and middle income countries - June 2, 2021.

<https://ccaafs.cgiar.org/events/towards-evidence-based-approach-agroecology-and-climate-change-adaptation-and>

4 P 1000 is hosting an Eco-restoration World Tour during EU Green Week, June 1, 2021

<https://tockify.com/wed2021/detail/11/1622541600000>

New Initiatives and Campaigns

New campaign calls for global pledges on agricultural innovation to reach climate and development goals

<https://ccafs.cgiar.org/news/Transforming-Agricultural-Innovation-Climate-Nature-People>

New field trials are underway in the UK to advance carbon sequestration using peat, rock chips, charcoal and trees.

<https://www.theguardian.com/environment/2021/may/24/trials-to-suck-carbon-dioxide-from-the-air-to-start-across-the-uk>

Sumitomo Corporation and Indigo Ag partner to advance soil carbon storage in Japan and other parts of Asia.

<https://www.sumitomocorp.com/en/jp/news/release/2021/group/14650>

ReNature is working to incorporate more agroforestry projects into global supply chains, working with Nestle, Lush and others.

<https://www.forbes.com/sites/shaynaharris/2021/01/27/renature-raises-venture-funding-to-scale-regenerative-agroforestry-collaborates-with-nestle-lush-cosmetics/?sh=3739c36816e6>

Media, News, and Opinions

To reach climate neutrality, Europeans embrace carbon farming.

<https://www.forbes.com/sites/emanuelabarbiroglio/2021/05/04/to-reach-climate-neutrality-europeans-are-going-to-farm-carbon/?sh=5788f2ceec69>

Agroforestry: An Ancient Practice with a Promising Future.

<https://www.resilience.org/stories/2021-05-10/agroforestry-an-ancient-practice-with-a-promising-future/>

Low-income women farmers in the Philippines survive the pandemic through agroecology, offering a model for resilience and replication elsewhere.

<https://amihanwomen.org/2021/04/19/peasant-women-survive-pandemic-impact-with-agroecology/>

Can ranching help restore the Brazilian Cerrado?

<https://news.mongabay.com/2021/03/the-possible-meat-a-brazilian-farmer-shows-ranching-can-regenerate-the-cerrado/>

Most Americans support soil carbon sequestration according to a recent poll.

<https://thehill.com/opinion/energy-environment/555509-most-americans-support-soil-carbon-storage-as-a-climate-strategy>

The Regenerative Agriculture Podcast features interviews with producers and experts.

<http://regenerativeagriculturepodcast.com/>

For more information, go to [our website!](#)

To help someone new join our listserv on Soil Carbon Sequestration [click here](#).