



Healthy Soils and Soil Carbon Sequestration Update October, 2018

- Critical Reports & Studies -

Scientists look at the big picture - Trajectories of the Earth System in the Anthropocene-
<http://www.pnas.org/content/early/2018/08/07/1810141115>

The Race of Our Lives Revisited by Jeremy Grantham – This paper by one of the world's most successful financial leaders provides a brilliant if terrifying summary of how fast we must scale up restorative and regenerative practices to ensure a safe food supply and a functioning habitat for life on the planet.
<https://www.gmo.com/docs/default-source/research-and-commentary/strategies/asset-allocation/the-race-of-our-lives-revisited.pdf?sfvrsn=2>

1.5C report calls for unprecedented transformation of our global economy. Soils have a role to play.
<http://sdg.iisd.org/news/ipcc-special-report-limiting-global-warming-to-1-5c-will-require-unprecedented-transitions/>

New paper shows we can lower global surface temperatures by scaling up well established conservation agriculture practices.
<http://advances.sciencemag.org/content/4/8/eaag0932>

The IPCC will be publishing a special report on land and climate. Here is [the schedule](#) and more details. It is vital that this report include more than the well-known and existing data sets on conservation agriculture, biochar and grazing. Please be in touch with this effort if you are able to contribute peer reviewed research on perennial crops, deep rooted crops, compost applications, agroforestry, silvopasture, or other critical practices.

Scientists discover what makes deep carbon a sink or source -
<https://news.mongabay.com/2018/09/scientists-say-theyve-uncovered-the-mechanisms-that-make-deep-soil-a-sink-or-source-of-emissions/>

Soil health can be improved by grazing management -
<https://www.sciencedirect.com/science/article/pii/S155074241830071X> - soil health and grazing management

Advantages of rotational grazing and adaptive management on rangelands and prairies -
<https://www.sciencedirect.com/science/article/pii/S0190052817300986?via%3Dihub>

USDA funded study of organic and regenerative agriculture demonstrates ecosystem benefits –
<http://www.farmlandip.com/2018/09/organic-regenerative-agriculture-study-funded-usda-demonstrates-21-4-million-ecosystem-benefit-6011-acres-5-years/>

Biomass Energy with Carbon Capture and Storage (BECCS) has declined in acceptance though remains a part of modeling and ongoing debate as a land use strategy. [This paper](#) argues that the effectiveness of BECCS strongly depends on several assumptions related to the choice of biomass, the fate of initial above ground biomass, and the fossil-fuel emissions offset in the energy system. Depending on these factors, carbon removed from the atmosphere through BECCS could easily be offset by losses due to land-use change. Trying to tackle climate change by replacing forests with crops for bioenergy power stations that capture carbon dioxide (CO₂) could instead increase the amount of CO₂ in the atmosphere, [scientists say](#).

The Foundation for Food and Agriculture Research seeks input on its research priorities related to healthy soils and related topics. Click [here](#) to provide your own assessment of high priority areas related to healthy soils.



4p1000 has identified its [research priorities](#) related to healthy soils and soil carbon.

Sustainable intensification of agriculture in China is gaining attention. [This paper](#) by Rattan Lal explores the key issues.

Groundswell International has published six case studies on agroecological practices with policy recommendations and relevant videos found [here](#).

- Conferences -

4p1000 and Regeneration International are co-hosting [a regional conference in South](#) Africa for food security and climate in cooperation with [NEPAD](#).

The Quivera Coalition, Holistic Management International, and American Grassfed Association will host the Regenerate Conference, October 31-November 2. Information can be found here: <https://quiviracoalition.org/regenerate/>

Organic farming advocates will gather [in Wisconsin in February](#) for one of the world's largest gatherings to promote organic practices.

The 8th annual [Soil and Nutrition conference](#) will take place in December.

The Soil Health Institute is hosting an [event in mid-October](#) to explore the links between human health and soil health – a rapidly growing field of investigation.

The California Department of Food and Agriculture co-hosted a 2-day side-event focused in conjunction with the Global Climate Action Summit in early September. The event assembled farmers, NGO leaders, global food chain leaders, government officials, and delegates to the Summit. [See here](#) for more details.

The 4p1000 will host a special side event on December 13 in Katowice, Poland in conjunction with the COP24. For details [click here](#).

Food waste has become a hot topic globally and rightly so. Food Tank and multiple partnering groups held a day-long conference on the topic in early October. - <https://www.eventbrite.com/e/2018-food-tank-summit-new-york-city-focusing-on-food-loss-and-food-waste-tickets-46883054478?aff=eac2>

The Delmarva Soil Summit will take place in early November.
<https://www.futureharvestcasa.org/field-school/delmarva-soil-summit>

This festival in support of ecological restoration globally took place in Spain in late September. <https://www.re-generationfestival.com/> For more information about future events contact Yanniek@re-generationfestival.com

- News Coverage -

Nine foundations commit 459 million dollars for land-based solutions to climate change.
<http://philanthropynewsdigest.org/news/nine-foundations-commit-459-million-to-global-climate-action>

France and California team up to promote soil health and are joined by the Netherlands.
<https://frenchfoodintheus.org/4004>.



[G20 releases statement](#) on global food system showing new interest in soils, sustainable agriculture, diversification of agriculture, and agriculture's role in addressing climate change.

Impact investing to promote healthy soils is gaining attention. This article features [seven funds that could transform agriculture](#).

Regenerating soil can double incomes for corn farmers -
<http://www.anthropocenemagazine.org/2018/03/regenerating-soil-can-double-corn-farmers-incomes/>

- Emerging Efforts –

Agroecological approaches to our food system are on the rise. Consider joining an online consultation process focused on agroecological approaches to agriculture and food systems. The **High-Level Panel of Experts (HLPE)** has launched an online consultation on the V0 draft of the report “**Agroecological approaches and other innovations for sustainable agriculture and food systems that enhance food security and nutrition**”. The HLPE will use the inputs received through this online consultation to further elaborate the report, which will then be submitted to external expert peer-reviewers, before finalization and approval by the HLPE Steering Committee. Please [click here](#) to visit the HLPE consultation webpage where you will find the full introduction to the consultation and can download the V0 draft of the report.

G20 Ministers of Agriculture push forward with AgroEcosystem Living Labs –
https://www.macs-g20.org/fileadmin/macs/MACS_Members/Argentina/Canada_Gray_Living-Lab_G20Argentina2018.pdf

Several major global food chains are promoting regenerative and climate safe agriculture. [Land o Lakes](#) is a farmer coop helping farmers change practices. Nestle, Danone, Mars and Unilever joined forces to create the [Sustainable Food Policy Alliance](#) to advance positive policies for healthy food systems.

Efforts are underway to support an International Year of Plant Health in 2020.
<https://www.ippc.int/en/iyph/>

[Carbon to Soil is an exciting initiative](#) in Finland with partnering farms in other countries. This effort to demonstrate the impacts of various field trials and efforts to sequester carbon is gaining attention globally.

Chefs are organizing to promote carbon farming and carbon neutral/climate friendly food. [The Perennial](#) restaurant in San Francisco is helping to lead the charge and launched [Zero Food Print](#), a nonprofit dedicated to supporting restaurants as they promote healthy soils, soil carbon sequestration, and climate friendly practices.

Ecological restoration is gaining worldwide attention as a key strategy for addressing mitigation, adaptation, and habitat protection. This report sites the tremendous threats to humanity and all life due to land degradation. <https://www.ipbes.net/news/media-release-worsening-worldwide-land-degradation-now-%E2%80%98critical%E2%80%99-undermining-well-being-32> And the World Agroforestry Centre is helping demonstrate [land restoration projects](#) focused on food security and poverty reduction in East Africa.



- Jobs and Volunteer Opportunities -

The [Foundation for Food and Agriculture Research](#) is seeking a communications and legislative affairs associate.

CGIAR seeks an [Information Officer](#) to help with knowledge sharing and data analysis.

[Nerds for the Earth](#) is an upstart network of technical volunteers promoting regenerative agriculture and other efforts to rebalance the climate.

Carbon 180 has job openings - <https://carbon180.org/jobs/>

Farm mentorships are available for aspiring organic farmers - <https://mosesorganic.org/projects/mentor-program/>

Indeed remains an obvious source for job searches related to [regenerative](#) and [sustainable agriculture](#) and soil organic carbon.

- Resources -

Soil carbon mapping is critical for scaling the field of soil carbon sequestration and healthy soils.

[Several efforts](#) are [underway](#). The FAO is leading a global effort to integrate national data on soils. A second version of a [Soil Organic Carbon Mapping Cookbook](#) was issued to help nations follow guidelines for gathering and submitting data for this initiative. The second edition of the cookbook provides generic methodologies and technical steps to produce SOC maps.

The Natural Resources Conservation Service of the USDA ranks various soil health practices. Click [here](#) to learn more about practices which maximize soil carbon sequestration according to the NRCS.

The National Center for Appropriate Technology offers a resource center for sustainable and organic agriculture. Click [here](#) to find out more.

The USDA has several videos on healthy soils. Find out more [here](#)

Check out the [World Soil Museum](#), hosted by ISRIC.

The Nature Conservancy is committing to [a major effort](#) on healthy soils.

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Invite others to [join this list](#) of farmers, academics, government officials, NGO leaders, and investors dedicated to scaling healthy soils to promote climate mitigation, adaptation, food security, and other co-benefits of soil organic carbon.