

Can healthy soils help mitigate a changing climate?

By Kim McCracken, NH and ME State Soil Scientist

Climate change and climate variability present a challenge to ecologically, economically, and socially sustainable land management. Drought, floods, and temperature fluctuations due to climate change can directly affect agricultural operations through damage to crops and livestock. Indirect effects of climate change include higher soil erosion rates, more invasive species, and changes in soil and vegetative relationships. Climate change, much like climate variability, will likely have significant regional differences, and the consequences of these changes will not be spread evenly, or even in the same manner, across the planet. For more information on Climate Change in New Hampshire check out these state specific reports available from Climate Solutions New England:

<http://www.climatesolutionsne.org/>

Improving soil health offers significant benefits to agricultural producers in terms of increased productivity and reduced inputs including energy, water and nutrients. There are also many broader benefits such as improved water quality, reduced water use, increased carbon sequestration in soils, as well as increased resilience to climate stresses such as extreme fluctuations in temperature and precipitation – both drought and flooding. This month we're sharing several resources related to soil health and our changing climate.

Video from UN-Food and Agriculture Organization on Soils and Climate Change:

https://www.youtube.com/watch?v=8_69vy7ZBxE&index=10&list=PLzp5NgJ2-dK7iaOH5OKUYRVROROUMEztd

Is Healthy Soil the Low Tech Solution To Climate Change? Science Friday interview with Kristin Ohlson (Author of the Soil Will Save Us) and Farmer and Soil Health Advocate Dave Brandt

(<http://www.nrcs.usda.gov/wps/portal/nrcs/detail/oh/home/?cid=STELPRDB116640>):

<http://www.sciencefriday.com/segment/08/15/2014/is-healthy-soil-the-low-tech-solution-to-climate-change.html>

Soil scientists, Dr. Christine Jones and Elaine Ingham share farming and land management methods that will return carbon to the soil – and keep it there – for healthier crops, more resilient farms, and less extreme weather. <https://www.youtube.com/watch?v=S3rhjqzVrRc&feature=share>

What If A Solution To Climate Change Was Beneath Your Feet? The Soil Solution to Climate Change was one of thirteen films featured in A Climate of Change Tour sponsored by 350.org, TRUST campaign and Wild and Scenic Film Festival. It has screened at the Santa Barbara International Film Festival, Sausalito Film Festival, Awareness Festival, Davis Film Festival, Wild and Scenic Film Tour 2013 and the One Earth Film Festival.

<https://www.youtube.com/watch?v=BxiXJnZraxk>