

**NOFA
MASS**

Northeast
Organic
Farming
Association



EDUCATING & ADVOCATING FOR HEALTHY SOILS



- 2011 - **Eric Toensmeier - Summer Conference Keynote: Regenerative and Perennial Agriculture for Climate Stabilization**
- 2014 - Soil & Nutrition Conference: Carbon focus, Graeme Sait
- 2014 - TNF Carbon Farming Issue
- 2015 - Two events in Newton and Amherst focusing on soil carbon sequestration with Dr. Christine Jones
- 2015 - Elaine Ingham Keynoter at SC
- 2015 - Video created, 2015: Put Carbon Back in the Soil: over 70k views and nearly 1000 likes
- 2015 - White Paper published, Soil Carbon Restoration, Can Biology do the Job? 11 languages, over 13,000 print copies distributed
- 2016 - Ray Archuleta & Brandon Smith— Cover Crops Field Day, Another TNF Carbon Farming Issue
- 2017 - Carbon Heroes Conference, UMass: NOFA/Mass, ELA, Biodiversity for a Livable Climate & CT NOFA OLC
- 2017- 2019:
 - **Carbon Proxy Tests created, one-on-one technical support** through comprehensive soil carbon proxy testing - 27 different farms/ gardens and counting... **Soil Carbon Growers Manual created**: DIY manual + worksheets & interpretations for farmer self-testing
 - **Teaching urban farmers/ community gardeners** about soil health and nutrient-dense gardening practices through food access programs (go Anna!
 - **Soil Carbon / Healthy Soils Focus** at conferences, Ed events and webinars, including carbon-focused farmer keynotes at our Winter Conference in 2017 (Paul & Elizabeth Kaiser) 2018 (Gabe Brown) and 2019 (John Kempf)
 - **Peer-to-peer** farmer organizing /learning around soil carbon, tillage reduction & soil health statewide and region-wide through education events & conference tracks
 - **Health Field Days**- 9 Soil Health Field Days in 3 states, 25 total on-farm events in the past 3 years focused on tillage reduction and healthy soils practices and assessment
 - **NRCS Conservation Innovations Grant**: Three year grant funded project to track no-till farming practices and soil health / yield outcomes over time, learning community
 - **MDAR Grant**: Two three year grants to improve our soil tech assistance and to track management practices (including no-till) and crop nutrient profile outcomes over time
 - New **MDAR Urban Bioremediation Grant**: Help to build healthy soils and reduce toxins through alternatives to cap-and-fill approaches
 - New **MDAR Dairy Promotion Grant**: Focus on Regenerative grazing practices
 - **Soil Carbon Outreach**: NOFA/Mass staff invited to speak to various groups, schools, affiliated organizations and universities, approximately 15-20 times/ year 2018, 2019
 - **NOFA/Mass Soil Carbon & Technical Support attracts UMass, Bard College & Tufts University Clients**, 2019, \$2350 paid
 - **Farm Aid**: Multi-state project funding field days, conference workshops and farmer roundtables- result will be a policy paper
 - **Advocacy and Policy Work**: Healthy Soils Bill in MA, Healthy Soils Action Plan & Drafting Committee for Ag Pilot Program

SOIL CARBON / SOIL HEALTH WORK

- In-field soil health assessment
- Peer-to-peer learning
- Advocacy



IN-FIELD SOIL HEALTH ASSESSMENT

The primary goal behind our soil health sampling approach is grower education and empowerment. We visit farms, conduct field tests to assess the soil (9 tests, ~14 data points/ observations) and provide:

- a report with our observations/ results
- an explanation putting results in context
- identification of limiting factors for soil health (ie compaction, low microbial activity, poor structure) and recommendations for how to increase soil carbon sequestration capacity based on scale-appropriate current management practices and soil assessment
- Farmer learning community members get their data presented with other farmers in the same cohort for comparison

Next steps:

Currently compiling all collected reports into a database with a few simple management practice categories so we can look for correlations.

Currently updating our protocols to more closely match current NRCS recommendations for field assessment





CARBON PROXY TESTS

Soil Surface Biology (Soil Carbon Coalition)

Soil Texture & Aggregation (NRCS, Cornell)

Earthworm Count (NRCS, Cornell)

Aggregate Stability (NRCS, Cornell)

Soil Hardness (Cornell)

Bulk Density (NRCS)

Water Infiltration (NRCS)

Active Carbon test kit (Ohio State/ Soil 1)

Soil Respiration (Solvita, Woods End Lab)

PEER-TO-PEER LEARNING

Farmer learning communities

- Soil health & soil mineral levels (MDAR)
- Crop nutrient density (MDAR)
- No-till practices and soil health outcomes (NRCS)

Workshops and Conferences

- Conferences: Keynotes, workshop tracks (Summer Conference 2020: Tim LaSalle)
- Soil Health Field Days, on-farm workshops
September 13, 2020, Red Shirt Farm (Lanesboro)
October 4, 2020, Freedom Food Farm (Raynham)



ADVOCACY

- **Healthy Soils Bill**: Involved with initial drafting and re-drafting of the bill with Steven Keleti, Bio4Climate, Soil4Climate, New England Farmers Union and Mass Farm Bureau — organized coalition of support (30+ organizations), action alerts and public support, organized the farmer drive-in for healthy soils
- **Healthy Soils Action Plan**: Policy Director Marty Dagoberto and Education Director Caro Roszell serve on the advisory committee for the HSAP
- **Healthy Soils Pilot Program Budget Appropriation Subcommittee**: Submitted a budget appropriation request to the legislature for a Ag Pilot Program, drafted with the input of multiple stakeholders including representatives from MDAR, NRCS, AFT, UMass, Brandeis, MACD, and others





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