

STATE SOIL HEALTH INITIATIVES: BUILDING MOMENTUM



Fishkill Farms, East Fishkill, New York

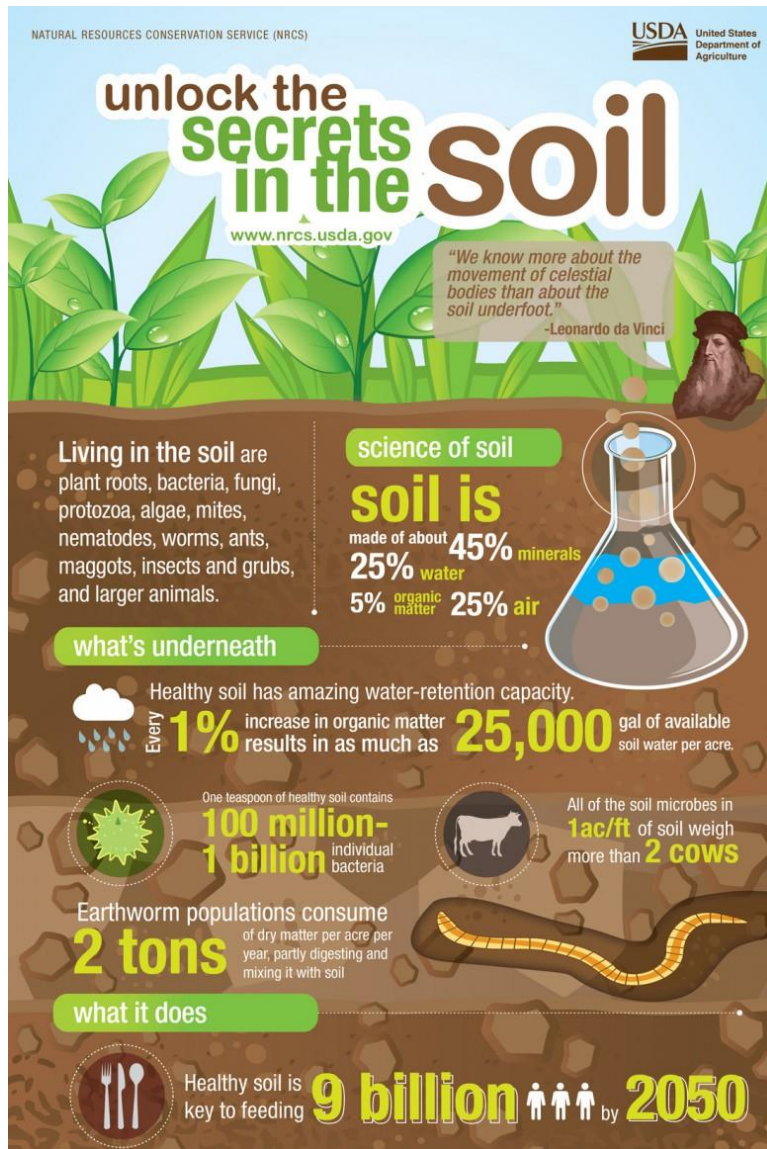
PETER LEHNER



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GOALS OF A HEALTHY SOIL LAW

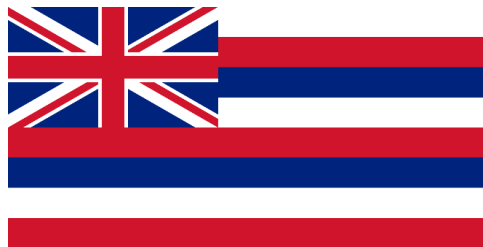


- **Reduce GHG emissions** (CH₄, N₂O, CO₂)
- **Increase soil carbon**
- Support **key soil health principles** (e.g. of NRCS or Rodale Institute):
 - Maximize soil surface cover
 - Minimize disturbance of soil
 - Maximize above- and below-ground diversity
 - Maintain continuous living roots in soil
 - Reduce and limit chemical inputs
 - Incorporate animals on cropland

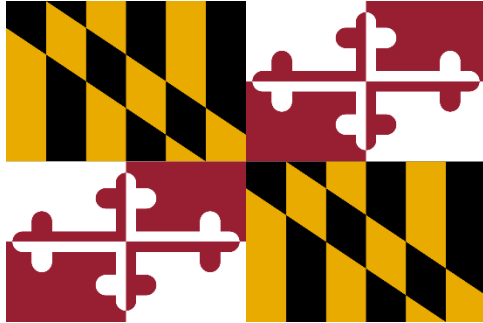
EXISTING STATE HEALTHY SOIL LAWS (1)



- **California:** [SB859](#) and [AB1613](#) (2016)
 - Creates Healthy Soils Program
 - Defines healthy soils, coordinate agency efforts, R&D, incentives, education
 - AB2377 (2018) – 5% of Climate Smart Ag funding for technical assistance (25% of funds for socially-disadvantaged farmers)
 - \$7.5M for program and demonstrations
- **Hawaii:** [HB 1578](#) (2017)
 - Identifies, measures, encourages soil health practices
 - Promotes C sequestration, compost, and agroforestry
 - \$25,000



EXISTING STATE HEALTHY SOIL LAWS (2)



- **Maryland:** [HB 1063](#) (2017)
 - Defines and supports healthy soils by directing the Agricultural Department to support practices through incentives, R&D, possible funding



- **Oklahoma:** [HB 1192](#) (2001)
 - Creates advisory committee to identify and support practices through R&D, education
 - Funding and opportunities for carbon trading



- **Utah:** [HCR 8](#) (2015)
 - Calls on all agencies “with authority to manage lands to increase soil carbon sequestration”

PROPOSED STATE HEALTHY SOIL LAWS (1)



- **Washington:** [SB 5947](#) and [HB 2095](#) (2019)
 - Defines carbon farming as activities that “increase the quantity of organic C in topsoil”
 - Provides grant funding for on-farm efficiency, regenerative ag practices that enhance soil health, agroforestry

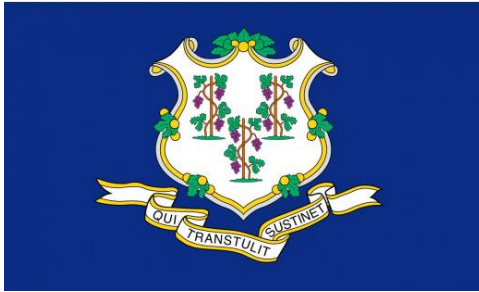


- **Illinois:** [SB 1980](#)/[HB 2737](#) and [HB 2819](#) (2019)
 - Defines soil health, and includes “conservation of soil health” to Soil and Water Conservation Districts Act
 - Requires soil health practices on land leased for agricultural purposes (Dept. of Natural Resources Act)



- **New Mexico:** [HB 204](#) and [SB 218](#) (2019)
 - Defines healthy soils and ID’s practices
 - Includes: soil assessment and education program, healthy soil advisory board, workshops and training
 - Creates “soil health champions”
 - \$5.15M for program (FY2020)

PROPOSED STATE HEALTHY SOIL LAWS (2)



- **Connecticut:** [HB 6647](#) (2019)
 - Defines regenerative agriculture and establishes program to improve soil health and water quality
 - Healthy soils program provides funding, incentives, education, training



- **Nebraska:** [LB 243](#), [LB 729](#) and [LB 283](#) (2019)
 - Creates Healthy Soils Task Force to develop health soils initiative by 2021
 - Provides incentive of \$20-45/acre for planting cover crops
 - \$250,000 for soil health and climate change research at University of Nebraska



- **Iowa:** [HSB 78](#) and [HF 102](#) (2019)
 - Establishes property tax exemption for land with cover crops
 - Requires Dept. of Ag and Iowa State University to conduct statewide soil health monitoring

PROPOSED STATE HEALTHY SOIL LAWS (3)



- **New York:** [A 3281](#) (2017)
 - Defines carbon farming using USDA COMET-Planner and COMET-Farm
 - Establishes tax credit to encourage C seq.
- **Vermont:** [S 43](#) (2017)
 - Requires the Sec. of Natural Resources to establish a regenerative soils program
 - Incentivizes C seq. with certification and marketing program, technical and financial assistance
- **Massachusetts:** [SD 1438](#) and [HD 3065](#) (2019)
 - Creates Massachusetts Healthy Soils Program
 - Defines and promotes healthy soils practices
- Legislation drafted in **Kansas, Kentucky, Missouri, Colorado, Pennsylvania**

State	Water Quality / Quantity Goal	Climate Change Mitigation Goal	Other Goals	“Healthy Soil” Definition	Specific Practices Identified	Committee, Task Force and/or Agencies	Research and Education	Technical Assistance	Funding and Financial Assistance
CA	✓	✓	Yields, erosion, air	✓	No-till, cover crops, compost, grazing	✓	✓	✓	\$7.5 M
HI	✓	✓	Resilience, trading	✓	Compost, agroforestry	✓	✓	✓	\$25,000 for study
MD		✓	Yields	✓		Dept. of Ag.	✓	✓	
OK		✓	Trading		Trees, conservation, re-vegetation	✓	✓	Measurement	Creates fund
UT	✓	✓	Productivity, biodiversity		Advance forestry, grazing	✓		“Encourages”	
WA		✓	Profitability, energy use	Carbon farming	Trees, no-till, cover crop, grazing	✓			Creates fund
IL	✓		Climate resilience	✓	Perennials				Soil and Water Cons. Districts
NM			Yields, profitability	✓	No-till, cover crops, compost, mulch, grazing	✓	✓	✓	\$5.15 M
CT	✓		Erosion,	✓	No-till, cover crops, grazing, integration	✓	✓	Training	Creates fund
NE	✓	✓	Profitability, resilience	✓	Cover crops	✓			\$20-40/acre for cover crops
IA					Cover crops		✓		Tax exemption for cover crops
NY	✓	✓	Yields	Carbon farming	Refers to COMET-Planner		✓	Certificate	Tax credit
VT	✓	✓	Climate resilience	Performance based	No synthetic chemicals	✓		Certificate	Marketing program
MA		✓		✓	No-till, cover crops, grazing, integration	✓	✓	✓	Creates fund

POSSIBLE KEY ELEMENTS OF MODEL LAW

- **Findings:** Benefits of health soils
- **Define:** Healthy soils
- **Goal:** To increase adoption of practices that create healthy soils
- **Actions:**
 - 1) Require agencies to consider and coordinate
 - 2) Identify healthy soil practices and goals
 - 3) Provide funding for R&D and demonstration projects
 - 4) Provide education, training, and technical assistance
 - 5) Provide financial incentives – either payments for practices or tons of carbon sequestered
 - 6) Work group to propose
 - 7) Create preferential purchasing and marketing programs and certification programs
 - 8) Create transition insurance program to help counter risk of adopting healthy soil practices
- **Funding Options:**
 - General funds
 - Fertilizer surcharge, storm water fee, or other impact fee (parallel to environmental benefit charge)
 - Funds from carbon cap and trade program, or carbon fee
 - Redirect federal EQIP, CSP, etc. funds to preference soil health practices