To the Environment Committee
Testimony in Support of Soil Health Sections 3,4, and 5
HB 6496 – An Act Concerning Certain Soil-Related Initiatives
Thank you for the opportunity to provide written testimony today. Although I work for the CT Agricultural Experiment Station, I am not writing on behalf of the agency, but speaking for myself as a scientist, a climate activist, an environmentalist, and an eater (as the late Bill Duesing, who would have been a strong advocate for this bill, would say).

It is long past time for Connecticut to recognize the importance of soil health and water conservation in our state statutes. Soil health – as defined by the US Department of Agriculture Natural Resources Conservation Service – means the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans.

The current statute focuses narrowly on soil erosion, which is an important problem, but only one aspect of soil health. Healthy soil is the basis of food security, water quality, and our mitigation, adaptation, and resiliency in the face of climate change.

Healthy soil that supports the growth of crops supports the agricultural industry and food security in our state. It is crucial that Connecticut protect and sustain prime and important farmland soils, which are subject to loss from development as well as from outdated farming practices. Soil health is improved through practices that prevent erosion, increase water filtration and water holding capacity, and increase organic carbon content, nutrient content, microbial activity, and biological diversity, as well as improving soil structure by reducing compaction. These farming practices help to mitigate climate change and benefit the farmer by making the farm more resilient to climate extremes by retaining more water and making it more available to plants, increasing drought resistance and need for irrigation, and also improving infiltration and making the land less susceptible to flooding. Improving soil health reduces the need for fertilizers, irrigation, and energy and increases and stabilizes yields.

Soil is everywhere, not just in farmland. Healthy soil improves the health of forests and urban and suburban landscapes by making them more resilient to changes in weather and by growing healthy trees and other plants. Healthy soil also plays a critical role in managing water quality by increasing water filtration and microbial action that cleans water as it moves through the soil, and by reducing erosion that carries soil and nutrients into water bodies.

In addition to making our farms, forests, and other landscapes more resilient to climate change, soil has the capacity to mitigate climate change by storing carbon. There is more carbon in the soil of the planet than in the atmosphere. Managing soil to keep existing carbon and increase carbon storage is one of the most cost-effective ways to mitigate climate change.

For all these reasons, I strongly support the recommendations from the CT Council on Soil and Water Conservation for updating the language on soil conservation in our state statutes.

Thank you for the opportunity to submit this testimony.

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