



HEALTHY SOILS ARE: *well-structured.*

Newsletter article #11

Soil structure, pore space key to proper soil function

“Soft and crumbly.” “Like cottage cheese.” “Like a sponge.” “Loose and full of holes.” Those and other common descriptions of what healthy soil looks and feels like refer to good soil structure.

Soil structure, the arrangement of the solid parts of the soil and the pore space between them, is critical to how the soil functions. When the solid parts—sand, silt and clay particles—cling together as coarse, granular aggregates, the soil has a good balance of solid parts and pore space.

Highly aggregated soils—those granular, durable, distinct aggregates in the topsoil that leave large pore spaces between them—are soils with good tilth and good structure.

Well-structured soils have both macropores (large soil pores generally greater than 0.08 mm in diameter) and micropores (small soil pores with diameters less than 0.08 mm that are usually found within structural aggregates).

An interconnected network of pores associated with loosely packed, crumbly, highly aggregated soils allows rapid infiltration and easy movement of both water and air through the soil and provides habitat for soil organisms.

To learn more about soil health, and to meet some of the farmers who are “Unlocking the Secrets in the Soil,” visit www.nrcs.usda.gov.

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