

Soil Health - Organic Matter Depletion USDA-NRCS Caribbean Area

Puerto Rico

US Virgin Islands

0 5 10 20 30 40 Miles

Legend

Rating

- OM depletion high
- OM depletion moderately high
- OM depletion moderate
- OM depletion moderately low
- OM depletion low
- Not rated or not available

Summary

A fertile and healthy soil is the basis for healthy plants, animals, and humans. Soil organic matter is the very foundation for healthy and productive soils. Understanding the role of organic matter in maintaining a healthy soil is essential for developing ecologically sound agricultural practices. Perhaps just as important is identifying areas at greater risk of organic matter depletion. For organic matter to accumulate in soil, the processes that synthesize organic matter generally need to be greater than the processes that destroy organic matter. These processes occur at continental and local scales. Continental-scale factors include the mean annual temperature, which ultimately governs the rates of biological processes, including both the synthesizing and destroying of organic matter. Another continental-scale factor is the amount of water generally available for use by plants and soil microbes. The amount of available water is governed by the amount of rainfall or snowmelt that an area receives in relation to evapotranspiration. This interpretation does not take into account the application of irrigation water.

