

Nurturing Your Soil - Part I  
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You always hear gardeners talk about soil – whether its ph is too high or low, whether it needs amending, whether it's too rocky, too sandy, on and on. But what exactly is soil, aside from being the substance that plants grow in?! Soil is a combination of weathered rock fragments and organic matter on the earth's surface. Its structure is comprised of individual sand, silt and clay particles that cluster together forming aggregates. Aggregation is the natural process of biological activity within the soil. Invertebrates, microbes and plant roots all inhabit and help make up the structure of our soil. Healthy soil is comprised of a complex porous network, similar to a sponge, allowing water to soak in while letting the excess flow out. The more organic the matter there is in soil, the more activity. More activity creates more aggregates which in turn create a more arable, fertile soil. Permeability, which is the rate that water moves through soil, as well as a soil's water-holding capacity, depends on that network. If the aggregates are compacted or broken down, it's harder for nutrients, oxygen and water to get to the roots.

Soil is a fragile, living thing and it can be damaged in several ways including compaction, excessive tilling or tilling when soil is too wet. A lack of nutrients can also cause soil breakdown. Avoiding unnecessary machine or foot traffic in soil helps prevent compaction. A good way to find out if your soil is too wet for tilling is if you can roll some up into a "worm." If this occurs, wait a couple of days and try again. A lack of nutrients can be remedied in several ways. Adding organic matter, such as compost, "feeds" the soil with necessary nutrients and also helps to bind and strengthen the aggregates.

There are many ways to feed your soil. Adding compost, organic or processed fertilizers or mulches are just some examples. Most of these mediums can be produced at home quite easily with kitchen and yard wastes, with the end result being a rich, crumbly food for your soil. We'll dig into the many ways to feed your soil next week!