



Turning Dirt into Soil: The Benefits of Healthy Soil

By Kit Veerkamp

UCCE Master Gardeners of El Dorado County

“...dirt is to soul what zombies are to humans. Soil is full of life, while dirt is devoid of it.”
Olivier Magny

Without healthy soil, there would be no plants, no forests, or fertile grasslands. Without these habitats, there would be no wildlife. The benefits of healthy soil include a healthy planet, beautiful landscapes, diverse habitats, and bountiful crops, all of which improve our quality of life. Those are compelling reasons to take care of soil, our most vital resource.

Living on the western slope of the Sierra Nevada poses challenges for those of us who like to garden. While many gardeners assume that their soils are clay, the soils in our area are rather diverse, ranging from sandy, to loam, to clay, and most often being a mix of these. In our area, topsoil is often a rather dense and compact layer of soil containing little organic matter. Soils that are rich in organic matter have incredibly high populations of microorganisms that form the soil food web. Microorganisms can range in size from the tiniest one-celled bacteria, algae, fungi, and protozoa, to more complex nematodes and arthropods. The more visible organisms include earthworms, insects, small vertebrates and plants. Soil organisms help decompose organic matter, which in turn makes nutrients available to plants.

Healthy soils provide a range of benefits that make gardening easier and more beneficial to our plants. Soil in good physical condition (good tilth) can hold and provide nutrients, water, and air to plant roots. An indication of good tilth is soil that is friable and can be crumbled easily with your fingers. The texture of good soil allows it to warm quickly in spring and store moisture for longer periods of time. Well-draining soil does not normally need added chemical fertilizers to increase yields of healthy, high quality crops. Healthy, nutrient-rich soil also discourages pests and diseases.

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How do you improve your existing soil if it is not ideal? Whether you have sandy soil or clay soil or something in between, organic matter will improve the quality of any soil. A high quality, balanced compost is made from a wide variety of vegetative matter and often some form of different manures. The more diverse the ingredients are in the compost, the more diverse the microorganisms that will be supported in the soil. Digging compost into your garden may be hard work, but it will pay dividends in more vigorous plants. There is nothing quite like the taste of homegrown tomatoes or berries fresh off the vine!

In our area we can simply look out the window to see that Mother Nature does a pretty good job of growing plants with little help from people. In an undisturbed environment, trees and shrubs shed their leaves and grasses die back, microorganisms then go to work breaking that dead material down and return it to the soil to be taken up again. For gardeners, the more we emulate nature, the more likely we are to get the kinds of results we are hoping for.

At all costs, avoid the use of pesticides. Studies have shown that the use of many pesticides commonly used to kill the “bad bugs” can damage earthworm populations and other beneficial microorganism living in the ecosystem in your soil. That community must be protected at all costs! They are what make your soil healthy.

Join Master Gardener Kit Veerkamp for a free virtual class on March 20, from 9:00 A.M. to 10:30 A.M. to learn more about turning dirt into soil. Register at:

http://mgeldorado.ucanr.edu/Public_Education_Classes/

Due to the pandemic, Master Gardener events will for the foreseeable future continue to be limited. We realize our public classes are valued by county residents and we are doing our best to provide virtual learning opportunities. You can find our new online class schedule at:

http://mgeldorado.ucanr.edu/Public_Education_Classes/?calendar=yes&g=56698, and recorded classes on many gardening topics here:

The Sherwood Demonstration Garden is open on Fridays and Saturdays from 9 AM -12 noon April – October. (Closed April 16 and 17 for our 2021 plant sale). Due to COVID-19 restrictions, the number of people allowed in the garden at one time is limited to 10, and masks and distancing are required. Please check our website for more details

https://ucanr.edu/sites/EDC_Master_Gardeners/Demonstration_Garden/

Save the date for our annual plant sale, April 17! This event was cancelled in 2020 due to the pandemic, but we’re committed to having a sale this year and more dates may be added. Please check our website in late March to see [how you can shop our sale: http://mgeldorado.ucanr.edu](http://mgeldorado.ucanr.edu)

Have a gardening question? Master Gardeners are working hard remotely and can still answer your questions. Leave a message on our office telephone: 530-621-5512, or use the “Ask a Master Gardener” option on our website: mgeldorado.ucanr.edu. We’ll get back to you! Master Gardeners are also on Facebook, Instagram, and Pinterest.

For more information on the UCCE Master Gardeners of El Dorado County, see our website

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at <http://mgeldorado.ucanr.edu>. To sign up for notices and newsletters, see [http://ucanr.edu/master gardener e-news](http://ucanr.edu/master_gardener_e-news).