



Nurture the Soil



You can improve your soil's ability to support thriving plants of all kinds by protecting it from compaction, amending it with nutrients, and adding mulch as a top dressing.

Protect Soil from Compaction: Compacted soil has less air and is less porous. This means it is harder for roots to grow through and harder for roots to get air.

Compacted soil affects plant growth -restricted roots are often unable to take up sufficient water or nutrients from the soil, resulting in reduced plant growth, particularly during periods of drought. Compacted soil can either hold water in (bad drainage) or keep water out.

A large number of organisms make up the soil food web; they cannot flourish in compacted soil. These organisms range in size from tiny one-celled bacteria, algae, fungi, and protozoa, to nematodes, earthworms, insects and plants. They are beneficial to plant health but cannot live in compacted soil.

We can avoid compacting the soil in several ways: by keep foot traffic limited to a few areas in the garden by using consistent pathways to navigate your yard, avoid walking on wet soils and areas where you have recently loosened the soil, and by adding compost we can help alleviate soil compaction by improving soil structure, aeration, and water holding capacity.

Amend the Soil: Soil amendments improve physical properties of soils. They increase the water and nutrient-holding capacity of soil and improve aerations and water infiltration.

Soil amendments are more than just fertilizer. Soil amendments - think compost, humus, or worm castings, broken down animal manures - improve soil by making its texture and drainage more conducive to plant health. Soil amendments help the microbes in soils, and the microbes make nutrients available to plants. The soils that grow our food and landscape plants are not sterile, but are filled with microbes mostly unseen by human eyes. These microbes make our soils healthy, smell good and productive.

Mulch: Using mulch in your landscape helps smother weeds, helps retain soil moisture, and helps moderate soil temperature. Mulch also feeds the soil by adding organic matters as the mulch breaks down, and alleviates soil compaction by absorbing pressure due to foot traffic.

Mulching can be done by spreading a 2" - 4" layer of a variety of materials over tree roots, shrubs, and plant beds. Keep mulch 2 inches away from woody trunks of trees and shrubs. Replenish annually to keep a 2" - 4" layer.

What mulches can you use? They generally are broken down into two categories, organic and inorganic.

Organic mulch can be yard waste - grass clippings, leaves, and small twigs can be used as mulch in moderation and are good for use behind bushes or borders. Another choice, straw keeps weeds down and is good for vegetable gardens. Pine bark and needles are good for weed control. Wood chips/bark are attractive, provide good weed control and save water.

There are several inorganic mulches that are used: landscape cloth is good for weed control and it allows air and water to pass through, and when used with organic mulch can save time for years to come. Black plastic can work well for annual plants - think strawberries - but landscape plants may not get enough air, water or nutrients with black plastic. Rocks, crushed granite, and gravel can be expensive, but stays in place and can look tidy.

Interested in becoming a Master Gardener? The UC Master Gardeners of Glenn County are offering a training class starting in January of 2016; contact the UC Cooperative Extension in Orland at 865-1107 for information.

Submitted by: Michael Anne Foley, UC Master Gardener of Glenn County