University of Nevada
Cooperative Extension

Mulch

Mulch demonstration area at the Outdoor Education Center

In all seasons, one of the most important things that a gardener can do is mulching, putting a layer of some material on the soil surface. In the winter, it keeps soil a little warmer, which limits chilling stress on tender plants. When temperatures rise, it insulates the soil, keeping it slightly cooler. It may help to think of mulch as similar to insulation in the attic.

Mulch can be almost any substance that lays on the surface of the soil, but some things are more beneficial and practical than others. You probably already know that there are many different kinds of mulches, but they fall into two general categories: the first type will decompose slowly but will ultimately break down into smaller compounds that nourish the soil and plants growing in it. These are the "organics". The other group does not decompose (and you have probably guessed that these are "inorganic").

Organic mulches are composed of materials that were alive – dried leaves, chipped bark and straw or hay. If aesthetics are not a concern, even shredded paper will work. Whatever type is used, put a thick layer on the surface, perhaps three inches deep after watering.

Inorganic mulches do not degrade; these are things like rock, which should be placed about two inches thick, and landscape fabric mulch. It is unusual to see fabric mulch on its own, but it is frequently placed under other mulches to improve stability and decrease light getting to the soil surface.

Once upon a time, horticulturists advised using black plastic, but we now strongly oppose this for several reasons. Because it tears easily, it can be used only once. It must be taken to the landfill, where it takes up considerable space. Some plastics are degraded in the sun, but they generally leave behind long unattractive streamers. Plastic is produced from petrochemicals, increasing the gardener's carbon footprint. Organic gardening recommendations prohibit using plastic mulches.

Organic and inorganic mulches each have their places, and deciding which one to use should be based on what you are growing. Organics are fine for vegetables and landscape plants that are not native or desert-adapted. A thick layer of bark or straw provides nutrients to plants as it breaks down. Rock is best for desert landscapes.

No matter what type of mulch, it will benefit the garden in more ways than simply maintaining an even soil temperature. Covering the soil decreases the number of weeds that

appear in the garden, which means less weeding time. It cuts down on the rate of evaporation from the soil, which conserves water. In other words, whether you use organic or inorganic mulch, you are going to save water. You will help your garden plants to survive during the most stressful times.

Finally, mulch helps to make a landscape visually connected. Some people might find bare soil attractive, but when it is covered with mulch, it has a "finished" look.

If you want more information, follow this link: http://www.unce.unr.edu/publications/files/ho/2006/sp0610.pdf for my publication "Mulches for Nevada Landscapes."

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