

More on Mulch

By Jane Billingham
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Enrich, beautify, and protect with mulch

Mulch is material used to cover bare soil. Organic mulches such as wood chips, compost or straw break down and need to be topped up from time to time, whereas inorganic mulches such as gravel or rock are more permanent.

Covering bare soil with mulch protects it from erosion by wind or rain.

Mulch stops sunlight reaching weed seeds on the soil surface so they will not start to grow. Seeds that blow in and start to grow roots down through loose mulch are easy to remove.

Mulch can act like a sponge to absorb moisture, shading soil to reduce moisture loss through evaporation and keeping soil at a relatively even temperature.

Plant roots grow best through soil with pore spaces that hold oxygen and water. Mulch prevents compaction of soil pore spaces from foot traffic and heavy rain.

Mulch also beautifies your yard. Think river rocks arranged to look like a stream bed or a layer of needles under a conifer where few ornamental plants thrive.

As organic mulches decompose and are incorporated into the soil, they release nutrients, improve soil structure, and feed beneficial organisms. Inorganic mulches, which do not decompose, do not provide these benefits.

So many different materials can be used as mulch. (One of the more unusual was strawberries being grown on a bed of wool.) How do you know which mulch is best for you?

The finer the mulch, the more quickly it will decompose and release nutrients, but the easier it will be for weeds to grow in it. As a general guideline, coarser mulch that takes longer to break down is used on more permanent landscapes, whereas finer mulch is used on beds you will be digging in more often such as vegetable gardens. Inorganic mulches have their place as decorative elements and around plants that enjoy heat and droughty conditions.

Arborist wood chips, a mixture of bark, wood and leaves, are a great choice for permanent landscapes filled with trees and shrubs. Spread them four to six inches thick on top of the soil. You may have heard that they take nitrogen from the soil. This is true at the surface; however, once the chips are decomposed enough that soil microorganisms pull them below the surface, they add nitrogen. So the benefit is twofold: less nitrogen where the weeds are struggling to get

started and more nitrogen where the plant roots are growing. Wood chips are most beneficial in landscapes where they will not be dug in. If you are lucky, you can find a local arborist who will deliver wood chips for free.

Bark is a popular choice in many suburban landscapes. As bark protects trees, it's water repellent, which means it lasts longer than wood chips but doesn't absorb as much moisture. And because its content is more uniform and it breaks down much more slowly than wood chips, it is not such a good source of nutrients. Depending on the source, bark can contain salts (because trees are floated down on the ocean), weed seeds and tiny sharp fibers.



Left: Wood chips were spread to a depth of 12 inches to smother the lawn that used to grow here. After one season, the owner raked back the chips and planted shrubs and perennials. **Right:** Typical use of bark mulch in a permanent landscape. *Photos by Jane Billingham / WSU Skagit County Extension Master Gardeners.*

Compost can be used as a mulch. Spread it to a depth of two to three inches. Weed seeds that land on top of it will begin to grow; however, it's a good choice for vegetable and annual gardens where you'll be digging regularly. You can run your soaker hoses under the compost so moisture is delivered directly to plant roots.

Pea gravel can be scattered to cover soil around plants that would rot if moisture pooled around them or soil splashed up on their leaves. Have a bucket of gravel handy to sprinkle on any soil that is exposed when you weed. There's a good demonstration of this at the succulent garden in the WSU Master Gardener Discovery Garden on Memorial Highway, 16650 State Route 536, Mount Vernon, WA.

River rocks can look great but be aware that over time, soil will blow in on top, followed by weed seeds and it can be tricky to weed in between them.

Some suggest a layer of a paper or synthetic product underneath the main mulch, but this is usually not beneficial and the results can be unsightly.

Whereas most mulch allows air and water through to the soil surface—to the benefit of both plant roots and soil organisms—sheet mulch such as **cardboard** and **newspaper** inhibits this, particularly on wet soils, and because it's really difficult to moisten paper products after they dry out, light rain tends to run off it. Voles also like to tunnel under cardboard.

You could consider sheet mulching when preparing a grassy or weedy area for planting as long as you keep the area well-watered; however, a thick layer of wood chips would also be effective. Mow down the grass before you apply the chips and rake them to one side when you are ready to turn the renovated area into a flower bed or vegetable garden.

Landscape fabric does not stop the growth of weeds from seeds that land on top of it. Weeds with sturdy root systems can grow up through it, and you can rip the material when you try to remove these roots. Landscape fabric also inhibits decomposing organic mulch from benefitting the underlying soil, and as it degrades over time (especially if it is exposed to the sun), you end up with scraps of plastic everywhere that are unsightly and difficult to get rid of.

No matter what kind of a landscape you have, there is a mulch for you—even if it is simply a living mulch of leafy plants that grow so close together that they shade and cool the soil, transpire moisture and deter weeds.



Pea gravel is used as a top dressing the succulent garden at the Master Gardener Discovery Garden on Memorial Highway. *Photo by Nancy Crowell / WSU Skagit County Extension Master Gardeners.*

RESOURCES:

- WSU bulletin FS160E. “Using Arborist Wood Chips as a Landscape Mulch.” (Home Garden Series)
- Dr Linda Chalker Scott. “Horticultural Myths.” <https://puyallup.wsu.edu/lcs/>.