



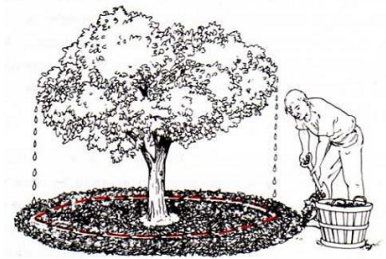
Mulches

What is Mulch?

Mulch is a covering for the soil surface. It is often made of organic material such as bark, roots, wood chips, or shredded leaves. Using mulch is a simple way to recycle yard wastes and improve your garden soil.

What Does Mulch Do?

Mulch reduces evaporation from the soil surface, keeps down weeds, and moderates soil temperatures. Mulch also protects sloping ground from soil erosion and reduces soil compaction caused by driving rain. In addition, organic mulches provide ideal conditions for organisms that are necessary for a healthy soil. When mulches from yard wastes break down, they become composted organic matter that can enrich the soil over time.



Some General Rules for Mulching

Annuals and perennials (both flowers and vegetables) should be mulched with a material that breaks down in a relatively short time, such as grass clippings or shredded leaves. A loose mulch allows spreading perennials to break through the surface. Mulch that mats down or is too thick may interfere with water and gas exchange in the soil root zone. Mulch that breaks down quickly is also easier to incorporate into the soil of annual beds after it has decomposed. Woody plants should be mulched with a 2 inch layer of partially decomposed shredded or chipped wood. This can look good and requires little maintenance. Paths may be covered with stone, shredded or chipped wood, as thick as is practical to wear longer and to keep down weeds, as long as this will not smother plant roots. To keep paths weed-free even longer, you may put down layers of cardboard or landscape fabric before spreading the mulch. Landscape fabrics, synthetic materials known as geotextiles, are durable but not biodegradable. These deter weeds while allowing the free flow of air and water to the soil, but eventually the weeds may be able to grow in a layer of composted organic mulch above the fabric and through the fabric into the soil, where they become difficult to remove. Black plastic restricts water and air movement and is not recommended for use as mulch.

Mulch Materials and their Uses

Grass clippings may be spread regularly in thin layers over vegetable and flower beds or mixed with shredded leaves and spread in a thicker layer. Spread grass clippings no more than one inch thick so that they don't mat and stop water from penetrating into the soil. Do not use fresh grass clippings if weed killer has been applied.

Shredded leaves of deciduous trees may be spread as mulch in the fall. Evergreen leaves can also be used; these take longer to turn a dark color and decay. Pine needles make a good mulch and are often used for acid-loving plants such as rhododendrons, azaleas, and blueberries.

Chipped or shredded woody waste, if spread two inches deep, makes a good looking, long lasting mulch or path material. Wood chips should be partially decomposed before they are used around plants. If the mulch has a sour or ammonia smell, do not use it. This means that the mulch has fermented and contains compounds that may harm plants. You may aerate the mulch pile and allow it to continue to dry. Once the sour smell is gone, the mulch should be safe to use. Fresh chips without an odor may be used for paths. Wood chips do not attract insects to your yard, although any insects already present may make use of them.

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Local businesses may provide organic by-products such as sawdust free of charge. Partly decomposed sawdust and other finely ground woody materials may be used on the soil surface, but don't mix them in. Finely ground materials that have not been composted may temporarily change the properties of your soil. In some situations this could result in yellowed plants with poor growth. A disadvantage of small particles is that they are likely to blow away if the mulch dries out. This is one reason that peat moss makes a poor mulch.

Stone mulch can store and reflect heat under hot sunny conditions. Because this may damage plants, stone is generally most appropriate in shaded locations.

Applying Mulch Materials

Remove all weeds before you apply mulch. Spread mulch under trees and shrubs at least to the dripline (the distance to the outermost branches) or use it to cover an entire garden bed. Mulch should not be spread too thickly or water will not easily reach the soil below. Thick mulch may also reduce air circulation and smother the roots of the plants it covers. Two inches of mulch is a safe thickness to apply around most woody plants. One to two inches is ideal for perennials and one inch is suitable for vegetables and annuals. Thick mulches are especially harmful to shallow-rooted plants such as rhododendrons and azaleas. Mulch must be kept away from the crown of a plant. In the case of trees and shrubs, this will allow the trunk or crown of the plant to dry, preventing rot, disease and rodent damage.

Where to Find Mulch Materials?

The best place to look for mulch materials is in your own yard. Every yard has grass, leaves or other green and woody materials that can be made into mulch. For chipped or shredded woody wastes, try contacting a tree service. If they are working in your area, they are often happy to deliver woody wastes and avoid extra travel and disposal expense.

Tools for Mulch-making

A rotary mower run across dry leaves will make a fine textured mulch for annuals and smaller plants. A small electric chipper will make a fine textured mulch of semi-woody stalks and woody wastes up to one and one quarter inch in thickness. Gas-powered shredders of five to eight horsepower that process materials up to three inches in thickness may be rented or purchased. Larger machinery is best used by trained personnel. Tool rental stores may carry chippers and shredders. Let them know the type of material you want to make into mulch and they will tell you which machine can do the job. Be sure to **read, understand and use** all safety precautions associated with mulch-making machinery.

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