

## Mulching Vegetables

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Few jobs in the vegetable garden are as rewarding as mulching. Time spent applying mulch to peppers, tomatoes, squash, eggplant and other vegetables will mean extra dividends at harvest time. Mulch prevents loss of moisture from the soil, suppresses weed growth, reduces fertilizer leaching, cools the soil, and keeps vegetables off the ground. Fruit rots sometimes occur when vegetables touch the ground. Mulching serves as a barrier between the plant and the soil, helping prevent fruit rots.

Mulching has several advantages. It reduces labor required in cultivation, since emerging and small weeds perish under their dark barrier. Therefore, mulching reduces the need for tillage and the use of weed-control chemicals. Water is conserved because mulches reduce the evaporation of soil moisture by lowering the soil temperature. Water absorption by a mulched soil is greater than that of an unmulched soil. Mulch also prevents the formation of soil crusts. In addition, soil loss from heavy rain and wind is decreased. In effect, mulches are excellent conservation agents.

Mulch is an excellent insulator and prevents drastic fluctuations in soil temperature. Mulch keeps the soil cooler in summer and warmer in winter, improving both root growth and nutrient availability. At the end of the growing season, organic mulches can be tilled into the soil to further increase the organic matter content and the water-holding capacity of the soil. Finally, mulches impart a neat, trim look to gardens and reduce the incidences of mud-splashed flowers and vegetables after heavy rains, which could lead to disease problems.

### Choosing the Right Mulch

A practical mulch should be easily obtained, inexpensive, and simple to apply. Availability and cost vary from region to region. Mulching materials may be available from materials in your own yard, such as leaves; bought from garden centers; and obtained from tree-service firms. A suggested depth is 3 to 4 inches, bearing in mind that too little mulch will give limited weed control and too much will prevent air from reaching roots. A list of mulching materials follows, with specific emphasis on advantages and disadvantages.

**Bark:** Small pieces of bark are preferred over large chunks. Bark mulches vary, but all are attractive, durable and suitable for vegetable gardens. The high carbon-to-nitrogen ratio of bark requires prior application of nitrogen fertilizer.

**Cocoa shells:** Available in some areas of Georgia. These are brown, light, easy-to-handle and relatively noncombustible. Cocoa shells have some value as a fertilizer and resist blowing in the wind. Their high potash content harms some plants, so they should not be applied to a depth greater than 2 inches. Cocoa shells may have an offensive odor.

**Coffee grounds:** Coffee grounds cake badly; a depth of 1 inch is recommended. Coffee grounds contain some nitrogen.

**Compost:** An especially good mulch, compost has fertilizer value and soil-like appearance. Finished compost (humus) is also a good organic amendment for tilling into the soil after the growing season ends.

**Corn cobs:** Ground corn cobs are a good mulch. Some find their light color objectionable. Other uses for ground corn cobs, such as in feeds and mash, tend to limit the supply for mulching.

**Leaves:** Leaves are free, readily available in many areas, release some nutrients upon decomposition and spread easily. However, they have a tendency to form a soggy, impenetrable mat. This problem can be overcome by mixing leaves with fluffy materials, such as hay or straw, or by shredding the leaves with a lawn mower.

**Newspaper:** This is certainly readily available and economical but somewhat difficult to apply. The high carbon-to-nitrogen ratio necessitates the prior application of nitrogen fertilizer. A good use for newspaper is as an undermulch; that is, place two to three sheets under a thin layer of an attractive, more expensive mulch.

**Peanut shells: (Not recommended)** These are attractive and easy to apply. Peanut shells also contain nitrogen and are long-lasting. However, peanut shells are carriers of *Sclerotium rotsii*, also known by the common names of Southern blight and white mold, which can be a major problem in the garden. Peanut hulls may also be infested with nematodes and nutsedge seeds and/or tubers. At the present time, peanut hulls are not recommended as a mulch.

**Peat moss:** This mulch is attractive and easy to handle but somewhat expensive. Dry peat moss requires considerable time and water to become moist, so it should be applied only to a 3-inch or less depth and avoided in areas subject to drought. Its acidic pH makes it especially desirable for acid-loving plants.

**Pine needles:** These have an aesthetics appeal and are not prone to forming a soggy mat as are leaves. They are especially good for acid-loving plants.

**Polyethylene film:** This is one of the few mulches that is readily available and economical enough to be used on larger-scale commercial applications. Polyethylene allows passage of gases such as nitrogen, oxygen and carbon dioxide. Holes or slits facilitate the planting of seeds or plants and water entry. It can last several years if undamaged by machinery. Usually, it is used as black film. Clear film is sometimes used, but it offers limited weed control (unless herbicide is applied before mulching), since light passes through it. Earlier crops can be produced with the clear and, to a lesser degree, black plastic mulch because of the warming of the soil.

**Straw/hay:** These materials are lightweight and easy to apply, but their appearance restricts their application mostly to vegetable gardens. They are used more frequently as a winter mulch for protection. They are not long-lasting and frequently contain weed seeds. Coastal Bermuda hay is propagated vegetatively and is an excellent hay mulch.

**Sawdust:** Aged or partially rotted sawdust makes a satisfactory mulch that lasts a long time. Since it is prone to caking and has a high carbon-to-nitrogen ratio, apply it only 2 inches deep after adding nitrogen fertilizer to the soil.

**Wood chips:** Since these are moderately priced or free, attractive, readily available and easy to apply, they make an excellent mulch. However, their high carbon-to-nitrogen ratio requires an application of nitrogen fertilizer. Wood chips can last about two years. Like bark mulch, woodchips can be a vector for termites.

**For additional information on mulches, see Extension Bulletin 816, *Composting and Mulching*, available from your county extension office.**

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