



# Mulching

HOLDS  
MOISTURE,  
DETERS WEEDS,  
PROTECTS  
THE ENVIRONMENT.

By definition, mulch is an insulating substance or material spread over the ground and around plant material. Usually it is organic material, and its primary purpose is to prevent loss of soil moisture by evaporation. It also will deter

weeds and maintain an even soil temperature. *Mulch materials include: wood chips, shredded bark and wood, leaves, pine needles, straw, grass clippings, compost, and a variety of other organic materials.*

## BENEFITS OF MULCHING

Mulch can serve several functions in your garden and landscape. For example, mulches can accent plants and give your landscape a finished look. Also, they have beneficial effects on plant growth and help reduce the time and effort you will have to spend on routine garden maintenance. Mulches also:

- *Provide a more uniform soil temperature* throughout the growing season.
  - *Reduce soil erosion, compaction, and moisture loss.*
- For example, mulches improve soil water properties by reducing the impact of rain drops on the soil surface and permitting water to soak into the soil; helps prevent run-off into our storm sewers and gutters and, ultimately, our lakes, streams and rivers.

- **Improve soil structure** by adding organic matter to the soil as the mulch decomposes; increase earthworm activity which is valuable for soil aeration and decomposition of future organic matter.
- **Reduce or eliminate weeds**, making hand-removal more efficient, thus reducing the need for chemical control.
- **Reduce soil-borne disease** caused by water splashing onto lower plant foliage.
- **Reduce chance of injury to trees** by keeping weed whips, lawn mowers and other garden tools away from tree trunks and roots.
- Provide a way for you to **recycle** your woody yard wastes as a garden resource.
- **Reduce mud and weeds** in areas of heavy foot traffic and utility. Some examples include the area around firewood piles, paths, children's play areas, pet areas, trash can storage and tool sheds. Wood chips can easily be turned into the soil or a lawn area if the use of that area changes.
- **Create an environmentally-friendly and attractive finish** to your landscape.
- **Cover unsightly areas where grass and groundcovers will not grow** such as under fences.
- **Eliminate need for tilling**, lessens root injury, and reduce bruising of fruits and vegetables.

## TYPES OF MULCHES

There is a large selection of mulches available commercially and locally to homeowners, which range from expensive to free of charge. Commercially, exotic mulches such as cypress, coco beans, cedar, and redwood chips can be purchased at garden centers and home improvement stores, and will certainly give you benefits listed above. **However, in sustainable landscapes, we are striving to reuse local and nearby materials.**

Therefore, it is recommended that one take advantage of the municipal wood chip piles located in our area. These mulches are made of ground or chipped trees that have fallen in storms, been removed by the city or homeowners, or are the result of pruning by utility companies. They are easily accessible and usually free of charge to citizens.

**Wood Chips:** Wood chips are made by propelling pieces of logs and larger branches through a chipper, reducing them to chips of varying sizes. For mulch, chips 1 to 4 inches in diameter will give you the best results. They are less likely to be washed or blown away, and the large pieces will slow the decomposition rate, making replacement of mulch less frequent. Commercially, some chips are screened to give buyers a consistent size which creates a more finished and formal look to your landscape.

You can produce your own wood chips if you own a wood chipper. Be sure to follow all safety precautions and wear safety goggles when using a chipper. Sometimes you may have green leaves and smaller branches in your finished product if you have been chipping branches that were actively growing. While this may affect the appearance of your mulch, it will ultimately add more organic matter into your soil.

**Shredded wood:** Shredded wood mulch is made by running branches and wood pieces through a machine called a tub grinder. The finished product is irregular and usually elongated. It is also usually uneven and rough, causing the wood pieces to bind together well. This helps keep them in place on the soil surface, making shredded wood mulch an excellent choice for slopes and hillsides where wind and water erosion is a factor. Even though the pieces differ in size, the finished look of shredded mulch is more uniform and natural looking than wood chips, making it a popular choice for landscapes.

**TO DO/Apply fresh wood chips:**

*Application of fresh wood chips can cause a temporary reduction of nitrogen in your soil.* This is due to the large amount of nitrogen needed by the soil bacteria responsible for decomposition of organic matter to do their jobs. Because they are more efficient users of nitrogen than plants, these microorganisms may cause plants to suffer from a temporary nitrogen deficiency. *To counteract this, supply additional nitrogen* to your plants at the time you apply the mulch. This will help meet the demands of both the plants and the microorganisms. Ammonium Sulfate and Ammonium Nitrate are examples of nitrogen fertilizers you could use. Work into the soil one or two cups per bushel of chips prior to applying your mulch.

## Concerns about wood chips and disease

Wood infected by Dutch Elm Disease and Oak Wilt is chipped by some municipalities and may be in the wood chips or shredded wood mulch you get from these sites. However, according to forestry personnel, you do not need to be concerned about the potential of these diseases being transmitted to your plant materials. The heat from the chipping process, subsequent drying out, and the small particle size of the finished product does not allow for the transmission of these diseases through wood chips or shredded bark. Do not use shredded or chipped wood from Buckthorn.