Extension Education Center



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Mulch

What is mulch?

Mulch is an inorganic or organic material spread over soil around and under plants.

What does mulch do?

Mulches reduce moisture loss, hold temperatures steady, and help reduce weed growth. Mulch helps to keep soil structure good by preventing crusting on the surface and by providing fibrous organic material to keep pores open. Mulch can slow the flow of water, minimizing erosion and runoff. Mulches prevent the alternate freezing and thawing which causes plants to heave. Plants receiving a regular mulch also tend to suffer less stress and therefore less canker damage. Mulches also prevent mower or trimmer damage to trunks of trees and shrubs.

What's the difference between mulch and compost?

Compost generally is a much more broken down organic matter that is INCORPORATED into the soil, rather than added as a layer above the soil.

What should I think about when choosing mulch?

DO NOT just be lured by visual interest like color. Colored mulches are expensive and unnecessary, and often break down quickly to the point that weeds can grow in them. Colored mulches which are very popular should be observed for the dye being used to cover up some undesirable quality

Consider how long your mulch will last, whether it will break down into organic matter that will enrich the soil, will it blow or wash away, and is it going to make a good home for weeds.

The finer the mulch the more quickly it breaks down into something like a soil, the more quickly it serves as a good home for weed growth. The coarser the mulch, the better.

Can I use herbicide treated grass clippings as a mulch?

Treated clippings should not be used until two weeks after application and at least three mowings have been done.

Can nutsedge be permanently smothered by mulch?

Some perennial weeds like nut sedge just can't be permanently smothered by mulch. A weed fabric beneath the mulch may help.

Can mulch go bad?

YES! Bad mulch can kill plants. If the mulch smells like vinegar, ammonia, rotten eggs, or anything very strongly do not use it until you have leached the pile repeatedly with water or do not use it at all. Mulch that has been kept in a very tall pile may often have this problem. The pH of bad mulch will be extremely acidic and can easily kill plants that it comes into contact with. Damage will manifest as leaf yellowing, scorch or defoliation a few hours to a few days after application.

If you have a pile that you fear will sour before you get it spread, keep it on a crowned surface so water will drain away and mix or turn pile frequently.

The plants most sensitive to sour mulch are bedding plants and low-growing woody shrubs.

What can I do if I accidentally spread sour mulch?

If you have accidentally spread sour mulch, rake it off immediately and drench the area around the plants with water---plants usually recover if you catch them quick enough; mix the sour mulch with a limestone and then reapply the mulch if you are really in a pinch.

Is there anything I should do before I buy or use the mulch?

Take a stick and prod it in the mulch pile, turning it over a couple of times. Non-uniform mulch with lots of sticks, rocks and leaves probably has not finished decomposing and may be hot or warm to the touch. Dye also is an indicator of possible poor quality mulch.

How much mulch should I use?

To keep weeds from sprouting you need to darken the soil completely which for finer mulches means 2" and for bulky mulches 4". A good average for any mulch is no more than 3" since any more can suffocate roots. A cubic yard of mulch spread 2" deep will cover 162 square feet, spread it 4" deep and it will cover 81 square feet. Got cubic feet? Take your area to be covered in square feet, multiply it by the mulch depth you will be using and divide by 12. T

The key to the use of any mulch is moderation, never more than about three inches at any one time, and to keep an eye on how plants are doing with the addition of any material.

I never have to water the mulch, right?

Wrong. You may need to water your mulch. If mulch becomes very dry it is very difficult to rewet, so make sure to water before and after putting your mulch down.

I use bagged mulch or mulch blown through a hose from a truck and the dust from it makes me cough and gets all over nearby buildings and cars.

A trick to spreading bagged mulch with minimal dust flying around is to wet the material right in the bag before you spread it.

When you are working with organic mulches you should always wear a pollen or dust mask to keep from inhaling soil microorganisms that accumulate in very dry mulch. Failure to do so can result in as asthmatic type reaction, or some times in a flu-like illness.

When should I apply mulch?

To keep your plants warm for the winter, mulch when first frosts threaten, or first windy rains start eroding soil in autumn. For weed and water savings, apply mulches in spring after soil has warmed up but weeds have not yet sprouted.

Can mulch affect the pH of the soil?

Yes, certain mulches affect pH: peat moss, pine needles and oak leaves all acidify the soil as they decay; maples and elm leaves and marble chips make the soil more alkaline. Ground shell mulches raise the pH.

Are there certain mulches that should not be used on young trees?

Straw should not be used on young, thin barked trees due to its attraction for voles to the seeds in the straw.

Does mulching make tree roots come to the surface?

No, it doesn't. Roots at the surface are indicators of extremely poor soil quality or poor planting procedures rather than a "preference" for growth in mulch.

What are the different kinds of mulch?

Sawdust sours easily and can cake up and prevent water and air exchange

Lawn clippings and maples leaves also tend to form an impenetrable mat so shred them first or add needles or coarser leaves like oak to help them stay fluffy.

Peat moss, a popular choice, is best for plants that prefer acidic soils.

Shredded hard wood bark is probably the most common mulch and has the good habit of breaking down over time to enrich the soil.

Pine or cypress bark nuggets decompose more slowly so will not have to be renewed as often.

Straw is usually used as a winter mulch for protection.

Do NOT use hay, since this is likely to contain many, many weed seeds.

Stones or other inorganic mulches are best used in small amounts in limited areas to highlight or contrast with a particular planting.

Cardboard and newspapers can be used as mulch and topped with a thin layer of a more attractive and expensive mulch material.

Buckwheat hulls and cocoa shells are attractive but tend to blow around very easily.

Cocoa shells also contain large amounts of potash which is very bad for young maples, lilacs, tomatoes and acid loving plants such as rhodies. Cocoa shells become very slimy and slippery when wet. Cocoa shells are bad for dogs because they contain a much higher amount of the chemical that makes dogs sick when they consume chocolate and some dogs will try to eat the mulch

How do I reduce vole damage when they tunnel under the mulch and chew at the bark of trees and shrubs?

A good practice is to always keep mulch six inches away from the trunk and to avoid straw mulches to reduce vole damage.

How do I prevent insects from using mulch as a bridge to get into buildings?

Leave a six inch gap between mulched areas and your foundation.