

# REDUCING PESTICIDES

it's perfectly natural.



## USING MULCH IN YOUR ORGANIC GARDEN

Mulching is a practice that organic gardeners value for its many benefits for the soil and for the perennials, vegetables, shrubs and trees that we grow. Mulch is a layer of organic or inorganic material applied to the surface of the soil. Organic mulches include compost, shredded leaves and bark. Examples of inorganic mulches include stones and plastic sheets. In this fact sheet you'll discover the benefits of using mulches, what types of mulches you can use and how and when to apply them in your garden.

### Benefits of Using Mulch

When applied during the growing season, mulches help control weeds by suppressing seed germination and by weakening the growth of young perennial weeds. In these ways, mulch helps to reduce our reliance on herbicides. Summer mulches also help retain moisture in the soil, which encourages plants to develop deep, self-sufficient roots rather than shallow ones that are more reliant on supplemental watering. Mulches also help to moderate the soil temperature, thereby reducing the stress of extreme temperature fluctuations on plants. Organic mulches also enrich the soil, improve its texture and increase the water-holding capacity of sandy soils and the porosity of clay soils. All of this is good news for plants and gardeners!

A layer of mulch applied to garden beds before winter sets in helps to insulate the ground. This keeps soil temperatures consistently cold, rather than allowing the soil to freeze and thaw as temperatures fluctuate. The freeze-thaw cycle can result in the "heaving" of perennials from flowerbeds and, in extreme cases, plants that do not survive the winter. The mulch will also protect borderline hardy plants during the winter.

### Types of Mulches

Organic mulches are those that decompose in the garden, a process that improves both soil texture and its water-retentive properties. Inorganic mulches aid gardeners in many of the ways that organic ones do, but because they do not break down, they do not improve the soil. However, the inorganic mulches have a place in the organic garden because of their effectiveness in helping to eliminate weeds. The following chart lists some of the more commonly available mulches and a guideline as to the depth to which they should be applied.

Mulch	Depth	Comments
Cedar Mulch	2-3 inches	Good for perennial border, around shrubs and trees. Keep mulch away from crowns of plants and stems and trunks of trees and shrubs



This fact sheet has been prepared by the Toronto Master Gardeners



Cocoa hulls	1 inch	Chocolate smell, may develop mould if applied too thickly, adds nitrogen to the soil, a major plant nutrient
Compost	1-2 inches	Adds nutrients to the soil, excellent soil conditioner, can be made in home composter or available commercially
Composted manure	1-2 inches	Excellent soil conditioner, may contain weed seeds if not well aged
Evergreen boughs	To cover	Traps snow to create good protection for tender plants
Grass clippings	2-3 inches	Apply when dry only
Landscape fabric		Excellent weed suppressant; long-lasting
Leaves	2- 3 inches (summer); 4-6 inches (winter)	May be used as a winter or summer mulch to moderate soil temperatures; excellent soil conditioner
Newspaper	2 layers	Good for suppressing weeds; decomposes more quickly than landscape cloth
Pine Bark	2-3 inches	Slow to decompose so is relatively long-lasting; keep away from trunks and stems of trees and shrubs
Pine needles	2-4 inches	Use around acid-loving plants such as rhododendrons and azaleas
Sawdust/wood chips	1-1.5 inches	Robs soil of nitrogen unless well aged; add extra nitrogen to fresh mulches
Stone	Just enough to cover surface	Attractive; suppresses weeds well
Straw	6-8 inches	Robs soil of nitrogen so add extra nitrogen to compensate; excellent insulator

### **When and How to Apply**

Organic winter mulches such as shredded leaves, pine needles, straw and evergreen boughs may be applied once the ground freezes where mice and other overwintering rodents are a concern. Shredded leaves and pine needles can be left in place when spring arrives and throughout the growing season to help improve the soil, but this may delay the warming of the soil. In vegetable gardens where it's important to warm the soil quickly because of our short growing season, remove the winter mulch in early spring. Once soil temperatures rise, apply a summer mulch to moderate soil temperatures and suppress weeds.

Summer mulches can be applied to perennial and mixed borders with shrubs and trees once winter mulches have been depleted (usually by worms that pull the mulch into the soil, thereby improving its texture), or once the soil warms up. Replenish throughout the season as the mulch decomposes, but before the soil becomes bare.