



MUCH ABOUT MULCH

Some Types of Mulch:

- A. **Organic mulches include:** bark, wood chips, leaves, conifer needles, lawn clippings, straw, corn cobs, peanut hulls, newspaper and cardboard.

- B. **Inorganic and synthetic mulches include:** crushed stone, black polyethylene, asphalt, pavement and aluminum foil.

Mulches most often used by the City of Victoria:

Rock mulches – add minerals to the soil; often used in alpine gardens; keeps the soil moist, cools the soil in the day and retains heat in the night, keeps the crowns of the plants from touching the wet soil and avoids rot.

Leaf mulches (shredded and whole) – shredded leaf mulches break down faster and are available as nutrients faster than whole leaves.

Bark Mulches (shredded and pieces) – bark mulches are decomposed by soil organisms which allow valuable nutrients to be released for plant uptake. In this way, mulches act in the place of slow release soil fertilizers.

Many mulches are high in cellulose and are decomposed by enzymes that form cellulase. Plant disease causing fungi dwelling in the soil such as Phytophthora have cellulose in their cell walls. Recent research has shown that these types of disease can be killed through the use of leaf and bark mulches.

Mulches conserve soil moisture. A mulch will also hold water near where it falls so that more of it soaks into the soil before flowing away. This also reduces soil erosion along with water loss.

Clean mulches provide a barrier between disease spores existing on the soil surface and healthy plants such as black spot of roses that re-infect plants by rain water splashing spores up onto healthy canes. Avoid using mulch materials that may harbour disease such as rose leaves with black spot.

Mulches can reduce weeds and weed competition. Thick mulches and impervious mulches reduce weed seed germination and prevent weeds that manage to germinate from growing.

Soil structure is improved by using organic mulches. The size of soil aggregates and the total porosity of the soils are increased when using organic mulches. Improved aeration, temperature and moisture conditions near the soil surface encourage rooting and other biological activity and enhance soil structure.

Mulches moderate the soil temperatures – keeping the soil surface cooler in summer and warmer in winter than it would be without the mulch.

Mulch Application

- Apply loose organic mulches in an even, thin layer of 100 – 150 mm (4 – 6 inches) deep.
- Avoid creating a “volcano effect” by piling mulch up against tree trunks. Instead, spread mulch out to the drip line of a planting bed.
- Use black plastic to “solarize” an area prior to mulching. The sun will heat the black plastic, preventing seeds from germinating.
- Placing layers of newspaper and cardboard over an area prior to planting can also reduce invasive plant germination.