



TREES ARE OUR PASSION

Mulching Trees and Shrubs – Why and How?

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Mulching is the most beneficial treatment that you can provide to your newly planted or established trees and shrubs. It feeds and protects their roots, (roots act like an “engine”) by providing necessary water and nutrients for trees to grow. Of course, roots are also anchors to keep trees and shrubs standing when exposed to natural environments.

Natural vs Urban mulching

A natural undisturbed forest environment provides trees with well aerated soil with no compaction or soil disturbances. A wide range of living organisms (virus, bacteria, fungus or soil microorganism) greatly contribute to the health and well being of trees and shrubs. Tree’s roots in a natural forest are covered with organic material replenished by leaves, twigs or wood – natural mulch.

Tree and shrubs growing in urban and disturbed areas where soil structure is significantly changed have a harder time to survive or thrive. Root development is usually limited due to poor soil quality, lack of nutrient replenishment and more exposure to constant soil fluctuations.

What are the benefits of mulch?

There are several benefits that mulch provides to trees and shrubs:

- Increases soil moisture levels
- Prevents erosion and water run-off
- Reduces weed competition and germination
- Protects roots from extreme hot or cold temperatures
- Reduces the likelihood of trunk or root damages caused by lawn mowers or “weed whackers”
- Improves soil fertility through organic decomposition
- Improves soil structure and drainage over time
- Reduces the likelihood of soil compaction
- Improves visual aesthetics
- Organic mulch provides a favorable environment for micro-organisms that improve overall soil health.

Types of mulch

There are organic and inorganic mulches. Organic mulches are natural materials such as wood chips, straw, flax shives or bark. Inorganic mulches are inanimate materials like various types of plastic mulch, stone, lava rock, pulverized rubber and geotextile fabrics.

Both of these mulches have positive and negative qualities. Organic mulches provide necessary nutrients to soil, improving the soil structure, but will need to be replenished. Inorganic mulches do not provide any nutrients to the soil or the soil structure, but they do not need to be replenished, saving on related costs.

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Picture 1: Plastic (L) rock (Center) and wood mulch (R)

Importance of proper mulching

Improper mulching can be detrimental to trees and shrubs, therefore proper mulching is especially important. Here are some key considerations for proper mulching:

- If you already have organic mulch, check the depth of it. Make sure that you don't over mulch. Over mulching is common with organic mulch as it reduces in volume over time.
- Create a "donut" of mulch around the tree trunk, not a "volcano". Do not pile up mulch around the tree trunk.
- Understand soil drainage – for well drained sites apply a 2 to 4 inches (5 to 10 cm) while for less drained sites apply less than 2 inches. Avoid putting any mulch on soils with very poor drainage.
- Apply mulch outside the tree crown line (drip line) or beyond, as most of the roots are further away from the trunk
- Keep the roots moist and the trunk dry.



Picture 2. Create a "donut" of mulch around the tree trunk, not a "volcano". Do not pile up mulch around the tree trunk.



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Be Aware

- Some grass, straw or flax mulches may have chemical residues in them that can be detrimental to your tree
- Inorganic mulches like rubber or plastic can be negative to trees, soil and the overall environment
- Do not apply very fine sawdust as it can create a water-resistant layer on the soil
- Inorganic mulches such as lava rock, marble chips, gravel, or other hard, non-organic mulches could lead to soil compaction and do nothing to cool the soil or add organic matter.
- Dark-colored mulches absorb heat during the day and may sometimes injure the bark of the tree or shrub.
- Organic mulches on nutrient-poor soil can decompose in the first year, creating some nitrogen deficiency.

Proper mulching is the key to maintaining healthy trees and shrubs for all to enjoy. Using mulch to protect roots from human induced damages like compaction and construction, or environmental damages such as frost or flood is one way to ensure the health and vitality of your trees and shrubs.

How can we help?

Our professional and experienced Tree Expert and ISA Certified Arborist offers a full range of consulting and advisory services to help you keep your trees healthy.

For more information:

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www.yardwhispers.ca or

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