

Compost!...For The Love of The Earth!

Compost is produced through the recycling of organic materials. Food scraps, leaves and yard trimmings, paper, wood, manures and the remains of agricultural crops can be transformed into compost through composting.

Compost is a valuable soil amendment. It has a high organic matter content and helps return to the soil many properties which are lost over time and with use.

While compost is not a fertilizer, it can contain nutrients which improve plant growth. When used in combination with fertilizers, compost works with the fertilizer to provide plants with nutrients over a longer period than would be possible if only fertilizer was applied.

What's in it for me?

Among compost's many benefits are:

- **Improved plant and root growth ...**

It has been shown that when compost is part of the growing medium, plants grow stronger and have higher yields. Compost adds not only organic material to the soil but it adds trace elements such as iron, manganese, copper, zinc and boron which are required for plant growth.

- **Reduced rate of nutrient release ...**

Compost binds the nutrients in the soil ensuring that they are available over a longer period of time for the plants to utilize them. Binding fertilizers with the soil also helps prevent fertilizers from running off to surface water during rain.

- **Improved soil porosity ...**

Microbial activity is essential for fertile soil. Microorganisms break down organic materials making the nutrients in these materials available to plants. Compacted soil does not allow the water and air required by soil microorganisms to penetrate below the soil surface. Because compost consists of many different sized particles, it has a porous structure which helps to increase soil porosity.

- **Improved water-holding capacity ...**

The organic matter in compost can soak up water thereby increasing the soil's water-holding capacity. This helps the soil absorb water during rain or watering ... and hold it for the use of the plants between rain or watering.

- **Improved resistance to wind and water erosion ...**

Adding compost helps prevent wind and water erosion by increasing the availability of water and nutrients to plants resulting in rapid, strong plant growth in areas prone to erosion.

- **Plant disease suppression ...**

Research has shown that compost can inhibit the incidence of plant diseases.

Making the Grade!

Because of its many benefits, compost is being used in many different ways. These include: agriculture, home gardening and landscaping, grounds maintenance (eg. athletic fields, golf courses), nurseries and reforestation, land reclamation as well as landfill cover.

The quality of the compost determines its use. Higher quality compost can be made when compostable materials are separated from noncompostable materials prior to composting. This is best done at the source and is referred to as source separation. Compost standards have been developed and are categorized based on the end use of the compost material. Compost referred to as Category A or AA can be used in any application, such as gardens, agricultural lands, horticultural operations and the nursery industry. Lower quality compost (Category B) should be restricted to use for applications such as the reclamation of strip mining sites where the soil quality is lower.

How can I use compost?

Uses for compost around the home include flower beds, vegetable gardens, adding with soil on newly seeded lawns, as a mulch around plants and on established lawns. For all of these uses, it is important to know how much compost to use.

TOPDRESSING

For best results, aerate the entire area before topdressing using a commercially available aerator. For topdressing, spread 1/3 to 1 1/4 cm (1/8" to 1/2") of mature compost evenly over the area using a rake. Water thoroughly. The water helps the compost move through the thatch layer to the soil surface and into aeration holes where it can help retain valuable moisture.

FLOWER BEDS

For existing beds, add about 2 1/2 cm (1") of compost and work it into the soil using a rake, hoe, shovel or rototiller. Water until the entire root zone is saturated. For best results with new beds, add 2 1/2 to 5 cm (1" - 2") of compost and rototill to at least a 12 cm (5") depth. Plant and water accordingly. Most annuals and perennials perform well in compost amended soils.

TREE PLANTING

Rototill an area about 3 to 5 times the diameter of the rootball of the tree to be planted. Add about 30% compost by volume to the area and mix thoroughly outside the hole with the native soil. Place the tree into the hole and use the compost amended soil mixture as a backfill around the rootball. Remove excess soil and water thoroughly.

VEGETABLE GARDENS

Apply about 2 1/2 cm (1") of compost and incorporate into the soil to a depth of 12 cm (5") with a rototiller or by hand. For poor soils, you may need to apply compost on a yearly basis until the soil has improved to your satisfaction. Do not overapply compost because many vegetables will not produce high yields if excess nitrogen is in the soil. Compost used as a mulch can be turned into the soil prior to replanting.

MULCH

For mulch applications around annuals, perennials and other landscape plants, a 5 cm (2") layer of compost is optimum. Apply compost and rake to achieve an even application. Avoid over or under mulching because other problems can arise, such as smothering of root systems. Arrange mulch so water flows away from trunks, reducing chances for crown rot. Finer-textured composts do not suppress weeds as well as coarse-textured composts.

LAWN ESTABLISHMENT

For lawns that are going to be seeded or sodded, apply about 2 1/2 to 5 cm (1" - 2") of compost and rototill to a depth of 12 cm (5"). For seeded lawns, apply seed and then a slight dusting of compost to cover seed. For sod and seeded lawns, thorough irrigation is necessary. Compost helps increase grass seed germination by providing adequate seed to soil contact, moisture and balanced nutrients. A regular fertility program should be established once the lawn is about 8 weeks old or when it has been mowed for the second time.

HANDY HUMUS HINTS!

1. MEASURE

To determine the amount of compost needed for an area (usually expressed in cubic yards or metres), measure the length and width of the area and multiply it by the depth of compost required (measure length *in feet* X *in feet* X depth *in inches* X 0.003 = **cubic yards** of compost required). It is often hard to determine when enough is enough. Therefore, measure carefully and apply the recommended amount to exactly the area designated and spread evenly before incorporating.

2. APPLY

Determine if you need bulk or bagged compost. For projects needing more than 2 cubic metres (or yards), bulk may be less expensive. For bagged materials, the label should indicate the volume within the bag (a 18 kg bag usually equals about 1 cubic foot). Simply divide the total volume of compost required by the volume of the bag to determine how many bags are needed. For small areas, transport the compost in a wheelbarrow and dump in evenly spaced piles. Rake all the piles out in star-shaped pattern or until the loads are distributed evenly over the area.

3. INCORPORATE

Using a rototiller or by hand, blend the compost about 12 cm (5 inches) into the soil as uniformly as possible. This usually requires several trips over the area to ensure proper mixing. The final soil mix will have a dark, uniform consistency. Install plants or seed and water thoroughly.