

Soil FACTSHEET



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BUYING TOPSOIL

INTRODUCTION

Like many gardeners and homeowners, you may envision topsoil as a black, fertile, loamy or silty mineral soil containing organic matter and some of it is. There is no legal description of topsoil, however, a wide variety of materials currently is marketed under that name. Hence, the topsoil that you have in mind for landscaping your lawn or improving your flower beds may be significantly different from the material that actually is delivered to your home.

There are two general types of topsoil: natural and manufactured. High quality, naturally formed mineral topsoil is available in limited quantities in BC as the Soil Conservation Act and several municipal bylaws prohibit the removal of topsoil from Agricultural Land Reserves, except by permit. As a result, lower quality materials are often offered for sale as topsoil. While plants will grow in a fairly wide range of materials, you should ensure that the topsoil you're buying has suitable physical and chemical properties for your purposes.

CHARACTERISTICS TO CHECK WHEN BUYING TOPSOIL

Texture

Soils generally are classified as coarse, medium and fine textured, in reference to the percentage of sand, silt and clay they contain. Medium textured (loamy or silty) soils, with approximately equal parts of sand, silt and clay are preferred as topsoil. Coarse textured soils are very sandy and have a low moisture holding capacity. Fine textured soils can be too clayey and subject to clodding, lumping and crusting making them difficult to cultivate.

Structure

A friable (easily crumbled) soil is desirable; you usually can determine this by feel. Soil clods and lumps should break easily into smaller bits when crushed in your hand. Sandy soils are usually loose and non-cohesive. Clayey soils are generally difficult to crush.

Organic Matter

You can use soil colour as a guide to the amount of organic matter in a soil but it is not always reliable. Soils vary in colour from light grey (low in organic matter) to black. Darker soil usually indicates increased organic matter content.

If the material you're purchasing contains a substantial amount of peat, compost, manure and woodwastes (shavings and sawdust) it may be, by itself, unsuitable to spread over an existing soil to provide a good environment for lawn and garden plant growth. However, all these organic materials are useful additions which when incorporated with the existing surface soil, will improve the water holding capacity and the physical characteristics.

Salts

Soils vary in their content of alkali salts. The amount present in the purchased topsoil will depend on the location from which it was taken and the depth of excavation. Plants also vary in their tolerance to salinity and alkalinity; an excess can restrict growth in many plants. The presence of excess salts in the soil is indicated by the appearance of white crystals at or near the surface after the soil has dried.

Many peaty soils in the province contain white bands of volcanic ash which should not be confused with salts. For positive identification of suspected salinity problems, submit samples for soil testing.

Weeds

The quantity of weeds in a soil is difficult to determine as it usually depends on the previous cultural practices and management on the land where the soil originated. Topsoil from abandoned fields can become infested with annual and perennial weeds which can present problems in lawns, gardens and flower beds. Couch grass, one of the most common weeds found in topsoil, can be easily identified by its creeping root system.

Manufactured Topsoil

The quality of the substitute topsoil material marketed as “manufactured topsoil” can vary considerably. This material is generally composed of mixtures of sandy to clayey subsoil, woodwastes (chips, shavings and sawdust) and, perhaps, manure, peat, compost or fertilizers which have been mechanically mixed. This material may or may not be suitable for good plant growth. Avoid excessive clayey and sandy material and coarse, raw woodwastes. A proper mixture should not contain more than 30-35 percent clayey material and/or 20 percent coarse woodwaste. Wood chips greater than sawdust size are easily recognizable. A mixture with a large percentage of sawdust will provide a growing medium for your plants but you will need to add extra nitrogen fertilizer for good plant growth.

On-Site Inspection

In buying either natural or manufactured topsoil, it is wise to deal with a reputable supplier and to inspect the source of supply where the topsoil is stockpiled or the location from which the topsoil has been or is currently being removed. Local municipalities can supply information on the location of sites where removal is permitted and the names of permit holders. Soil tests can also be made to determine the suitability of the topsoil.

IMPROVING THE EXISTING SOIL

Topsoil may be needed where the existing soil is too gravelly, sandy or clayey or is shallow over a compact or impervious subsoil. However, in many cases, the most desirable course of action is to improve the existing mineral soil so that it will support normal, healthy plant growth. These improvements can include:

SUBSURFACE CLEAN-UP

Remove roots, stones and other foreign material from the soil surface.

DRAINAGE

In some cases, water can be diverted from the property to allow deeper rooting and a healthier environment for plant growth.

ORGANIC MATTER

Incorporate manure, peat, compost or other organic material into the surface 0-15 cm (0-6 in) depth of mineral soil. Organic matter improves the water holding capacity of all soils, especially water and air penetration and prevents crusting. If the organic source is sawdust, shavings, compost or crop residues apply extra nitrogen fertilizer to aid decomposition.

FOR FURTHER INFORMATION, CONTACT:

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