

Glossary of terms commonly used in horticulture & landscaping

AIR-FILLED POROSITY the proportion of a medium occupied by air following drainage after saturation

AVAILABLE NUTRIENT Plant nutrients which are in a form suitable for uptake by plant roots.

BUFFER CAPACITY This refers to the ability of a medium to resist changes to the pH and is closely linked to its cation exchange capacity. In soils it is the clay and organic matter fractions which are most influential in enabling a soil to resist such changes in pH. Soils usually have much higher buffer capacities than the organic materials which are typically added as soil ameliorants, and it is therefore normally quite difficult to alter significantly the pH of a soil in the long term.

BULK DENSITY The mass of material per unit volume.

CALCIUM AMMONIUM NITRATE A water-soluble fertilizer containing 28% nitrogen. A useful material for adding to bark-based media when supplementary nitrogen is required.

CATION EXCHANGE CAPACITY (CEC) The CEC value gives an indication of the ability of certain nutrients within a growing medium to resist the effects of leaching. It is defined as the total amount of exchangeable cations, e.g. potassium, calcium and magnesium ions, that a medium can absorb per unit weight or volume, expressed as milliequivalents per 100 grams (meq/100g) or milliequivalents per 100 cubic centimetres (meq/100cm³). The latter units are conventionally used in reference to loamless growing media.

Materials such as peat and bark have moderate CEC's, whereas relatively inert products such as perlite, have virtually none. Soil-based materials have high CEC's, and can be added to growing media for the specific purpose of decreasing the likelihood of nutrient leaching.

C.E.N. The European Committee for Standardisation, based in Brussels.

CLAY Soil particles of less than 0.002mm in size. Also a soil texture classified as more than 40% clay, less than 45% sand and less than 40% silt.

COMPOST A term commonly used to describe both growing media and the decomposed organic material resulting from the process of composting.

COMPOSTED A term used to describe organic materials after they have been through the process of composting. Often used in conjunction with the processing of bark. See MATURING.

COMPOSTING A term used to describe the decomposition of organic matter by the heat-generating action of a mixed population of micro-organisms.

CONIFER Cone-bearing tree species, including pines, spruces, larches, firs, hemlock etc.

CONTROLLED RELEASE FERTILIZER (CRF) Fertilizers manufactured with a coating which controls the availability of nutrients over a specified period of time. The rate of release is usually dependent on the temperature of the growing medium. These are more normally used in container plant production than in soils. Controlled release fertilizers are available in different longevities, ranging from a few weeks to two years.

ELECTRICAL CONDUCTIVITY A measure of the soluble salt or ion content of a material, expressed in various units, most commonly microSiemens per centimetre ($\mu\text{S}/\text{cm}$). Soluble salts or ions, carry an electrical charge. The higher the quantity of charges, the greater will be the electrical conductance of the medium. High electrical conductivity can be an indication of high levels of available nutrients.

ERICACEOUS A term describing plants belonging to the family Ericaceae, many of which are lime-haters, i.e. intolerant of alkaline conditions. They are often also intolerant of high soluble salt levels in either the soil or growing media. The term is also used to describe growing media which are suitable for growing plants, such as the Ericaceae, having a low pH and low nutrient levels.

FIELD CAPACITY The amount of water remaining in a soil after having been saturated and after drainage has ceased.

FINES A term referring to the fine particle fraction of a growing medium or mulch.

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GRANULAR BARK A term used to describe the quality of bark from pine trees.

GREEN COMPOST The decomposed organic material resulting from the composting of a variety green matter. Composted green waste is typically high in mineral content, levels of more than 50% not being uncommon, and hence it usually has a high bulk density, compared to other organic media. It is normally alkaline in reaction, having pH levels which are usually in excess of 7, and has a variable nutrient content.

HUMIC ACID A variable mixture of organic substances which can be precipitated from organic matter under certain conditions. Their presence can add to the chemical activity of growing media.

HUMUS A complex and resistant mixture of dark brown amorphous and colloidal substances of organic origin, which have been modified from the original organic matter or synthesized by various soil organisms.

ION An electrically charged particle into which the atoms or molecules of some chemicals dissociate when dissolved in water. The water into which they dissolve becomes a conductor of electricity.

INCORPORATION DEPTH The vertical depth to which soil ameliorants are incorporated into the soil.

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