

GLOSSARY OF TERMS

Aeration - the process by which air in the soil is replaced by air from the atmosphere

Autumn freeze risk - the percentage chance of having a freeze on or before a certain designated date in autumn

Available water storage capacity - the capacity of a soil to store water that can be readily absorbed by plant roots

Bases - positively charged metallic cations such as calcium, magnesium, sodium and potassium that are usually found on the soils' exchange sites

Calcareous soil - soil containing sufficient calcium carbonate (usually lime), often with magnesium carbonate to release carbon dioxide gas when treated with cold 0.1 N hydrochloric acid

Cations - nutrients held on the exchange complex and are usually available to the plant

Chlorosis - yellowing of green coloration in plants

Cutting - an unrooted portion of grape cane used to make new plants

Extract, soil - the solution separated from a soil suspension or from a soil by filtration, centrifugation, suction or pressure

European Loop System - a training system for vines in which canes left at pruning are bent down to form half circles

Fan Apex - the highest elevation area of a fan landform

Fan Toe - the lowest elevation area of a fan landform

Field Capacity - the percentage of water remaining in the soil 2 or 3 days after the soil has been saturated and free drainage has practically ceased

Fragment - a solid mineral particle larger than 2 mm in size

Friable - a consistence term pertaining to the ease of crumbling of soils

Frost Pocket - an area susceptible to the collection of cool air

Geological - pertaining to the science of geology

Glacial Till - unstratified glacial drift deposited directly by the ice and consists of clay, sand, silt, gravel and boulders intermingled in any proportion

Groundwater - water that is passing through or standing in the soil and the underlying strata. It is free to move by gravity.

Growing Degree Days - A measure of the accumulation of the mean daily temperature above the minimum threshold temperature for plant growth. In the case of grapes the standard threshold is 10°C.

Hardy - the ability of vines to withstand cold temperatures

Heliotropism - the tendency of some organisms to move to or turn toward or away from the sun

Imperfectly Drained - the soil moisture in excess of field capacity remains in subsurface soil horizons for moderately long periods during the year

Isotherm - a line on a map connecting points of equal temperature.

Kniffen Trellis - a trellis consisting of two wires, one above the other

Leaching - the removal from the soil of materials in solution

Linear Regression - a statistical method for estimating one variable from one or more related variables (e.g. Growing degree days from elevation)

Matrix, Soil - the main soil constituent or material that encloses other soil features

Microclimate - the fine climatic structure of the air space that extends from the very surface of the earth to a height at which the effects of the immediate character of the underlying surface no longer can be distinguished from the general local climate.

Milliequivalent - The 1/1000 part of an equivalent weight of an element. The equivalent weight of a soil colloid is the weight of clay or organic colloid that has a combining power equal to 1 gram - atomic weight of hydrogen.

Moraine - an accumulation of earth, generally with stones, carried and finally deposited by a glacier. Several kinds of moraines are distinguished, such as ground moraine, end moraine and terminal moraine.

mS/cm or milli-Siemens/cm - the measure of electrical conductance over a distance of 1 cm in solution (electrolite)

Organic Matter - the organic fraction of the soil includes plant and animal residues at various stages of decomposition

Orographic - of, pertaining to, or (frequently in meteorology) caused by mountains

Percolation - the downward movement of water through soil

Perviousness - the potential of a soil to transmit water internally, as inferred from soil characteristics

Phenology - the study of the timing of recurring natural phenomena such as the flowering of tree or freezing of a river

Photostimulus - a light form that influences the activity of an organism as a whole or in any of its parts

Photosynthesis - process in green plants that uses water and carbon dioxide in the presence of light to produce sugars, oxygen and energy

Plastic Soil - a soil capable of being molded or deformed continuously and permanently into various shapes by moderate pressure

Pores - the part of the bulk soil volume not occupied by soil particles

Post-glacial - pertaining to the time since the latest glacial time; not related to meltwaters that originated from glaciers during the glacial time

Radiation - energy propagated through space in the form of an advancing disturbance in electric and magnetic fields existing in space. In the atlas we are concerned primarily with visible and infrared radiation.

Reclamation - bringing into agricultural use of otherwise idle non productive land

Relief - elevations or inequalities of a land surface, considered collectively

Respiration - oxidation in plant cells of organic material with the production of water, carbon dioxide and energy.

Salinity - the amount of soluble salts in a soil, expressed in terms of percentage, part per million, or other convenient ratios

Sinkhole - a subterranean cavern caused by erosion of subsoil material with final collapse of surface due to running water

Soil Parent Material - the unconsolidated and more or less chemically weathered mineral or organic matter from which a soil has developed by pedogenic processes

Solar Radiation - the total electromagnetic radiation emitted by the sun

Standard error of estimate - degree of precision in an estimated variable. The smaller the standard error the more precise will be the predictions.

Stickiness - the quality or degree of adhesion to other objects or materials

Structure - the combination or arrangement of primary soil particles into secondary particles, units or peds

Subsoil - a general term for the layer of soil or surficial geologic deposit that underlies the surface and subsurface soil layers. It begins at about 50 cm (1.5 ft) below the soil surface and continues downward for about 100 cm (3 ft)

Synoptic - the use of meteorological data obtained simultaneously over a wide area for the purpose of presenting a comprehensive picture of the state of the atmosphere

Terminal moraine - an accumulation of unsorted materials formed across the course of a glacier at its farthest advance or at places marking the termination of important glacial advances

Texture, soil - the relative proportions of the various mineral soil separates in a soil as described by the classes of soil texture

Thermal imagery - the record of variations in the amount of heat given from objects at a particular location at certain wave lengths (infra-red) longer than that of visible light

Thermal conductivity - the rate of heat transfer to or from a point in the soil

Topoclimate - The climatology of a terrain. This is intermediate in scale between microclimate and macroclimate and is generally taken to mean the climate in a particular place, which depends not only on the confirmation of ground, but also on the type of soil and vegetation.

Transpiration - the process by which water in plants is transferred as water vapour to the atmosphere

Trellis - the structure on which grape plants are trained; usually made of posts and wires

T-bar Trellis - a trellis consisting of T-shaped posts with 2 to 4 horizontal support wires

Variety - different grape plants each distinguished by their own characteristics

Veneer - a layer of soil material less than 1 m (3 ft) thick overlying other soil materials or bedrock

Wilting point - the moisture content of a soil at which plants wilt and fail to recover their turgidity when placed in a dark humid atmosphere. The wilting point is commonly estimated by measuring the 15-bar percentage of a soil.