

ACCUMULATION

The process of gathering together and increasing in amount over a period of time.

AGGRAVATE

To make something become even worse or even more severe than before.

ALKALOIDS

A group of nitrogen-containing compounds that are physiologically active as poisons or drugs

AMINO ACIDS

A compound belonging to a class that contains an amino group. Amino acids make up proteins and are important components of cells. Some can be synthesized others must be obtained through the elemental essential amino acids.

AMINO ENZYMES

Describes a chemical compound containing the NH₂ group of atoms.

AMMONIUM

Relating to or containing the NH₄⁺ ion derived from ammonia.

AROMATIC

Organic compounds that contain one or more rings of carbon atoms and undergo chemical reactions that are characteristic of benzene. About half of all organic compounds are aromatic.

BLOTCHY

Any fungal disease of plants marked by discolored areas on leaves and stems.

CARBON

A nonmetallic element that exists in two main forms, diamond and graphite, and has the ability to form large numbers of organic compounds.

ANHYDRIDE

A compound formed from another by the removal of water.

CHLORINE

A gaseous poisonous corrosive greenish yellow element of the halogen group that is highly reactive and is a product of the electrolysis of sodium chloride. Use: water purification, disinfectant.

CHLOROPLAST

a membranous sac plastid that contains chlorophyll and other pigments and is the place where photosynthesis occurs within the cells of plants and algae. While plant cells contain numerous chloroplasts, algal cells often have just one. Each consists of interconnected stacks of disk-shaped membranes in fluid, surrounded by a double membrane.

CHLOROPHYLL

The pigment in plants that captures the light energy required for photosynthesis. In plants and algae, chlorophyll is contained within numerous minute membranous sacs chloroplasts within cells of the stems and leaves.

CHLOROTIC

(adjective of chlorosis) A yellowing or whitening of a plant's leaves and stems caused by a lack of chlorophyll

CHLOROSIS

A yellowing or whitening of a plant's leaves and stems caused by a lack of chlorophyll

CYSTEINE

A sulfur-containing amino acid that is converted to cystine during metabolism. Formula: C₃H₇N₂S

DEFICIENCY

An inadequate supply of something necessary, especially a nutrient

DETERIORATE

To become or make something worse in quality, value, or strength.

DIFFERENTIATION

a developmental process from a single unit or whole into many other derived things, or from a simple to a complex state.

DIVISION

The act of separating or splitting something into parts, or an instance of this.

ENZYMES

any complex chemical produced by living cells that is a biochemical catalyst.

HYDROGEN

A highly reactive colorless gas, the lightest element and the most abundant in the universe. Use: industrial processes, production of ammonia, reduction of metal ores to metals.

IMMOBILE ELEMENTS

sulfur, calcium, iron, manganese, chlorine, boron, copper, molybdenum these will show their first symptoms on younger leaves and progress to the whole plant.

INTERNODES

the part of a plant stem between two nodes.

INTERVEINAL CHLOROSIS

a yellowing of the leaves between the veins with the veins remaining green. While there are several possible causes, this symptom frequently indicates a nutritional imbalance.

LESIONS

Any damage or abnormal change in the tissue of an organism, usually caused by disease or trauma.

MATURATION

the process of becoming mature, ripe, or more developed.

MILLIMHOS PER CENTIMETER (MMHOS/CM)

The basic unit of measure of electrical conductivity in soil, and the inverse of electrical transmissivity through a solution.

MOBILE ELEMENTS

nitrogen, phosphorus, potassium, magnesium, zinc these are more likely to exhibit visual deficiencies in the older leaves.

NECROSIS

From the Greek “νέκρωσις” “death, the stage of dying, the act of killing” from νεκρός “dead”) is a form of cell injury which results in the premature death of cells in living tissue by autolysis.

NECROTIC

Tissue death (adjective of necrosis)

NUCLEIC ACID

An acid of high molecular weight, e.g. DNA or RNA, consisting of nucleotide chains that convey genetic information and are found in all living cells.

OSMOTIC PRESSURE

The pressure that must be applied to a solution to stop osmosis.

OXIDATION

A chemical reaction in which oxygen is added to an element or compound.

OXYGEN

A colorless odorless gas that is the most abundant element, forms compounds with most others, is essential for plant and animal respiration, and is necessary in most cases for combustion.

PETIOLES

The stalk that attaches the leaf blade to the stem.

PRECIPITATE

To cause a solid to separate out from a solution as a result of a chemical reaction, or separate out in this way.

PREDOMINATES

To have greater importance, power, or influence than others.

PURINE BASES

A derivative of purine, especially either of the bases adenine and guanine, which are found in RNA and DNA.

RESPIRATION

The chemical and physical process in which oxygen is delivered to tissues or cells in an organism and carbon dioxide and water are given off external respiration.

STOMATA

A pore, found in the epidermis of leaves, stems, and other organs, that facilitates gas exchange. The pore is bordered by a pair of specialized parenchyma cells known as guard cells that are responsible for regulating the size of the stomatal opening.

SUCCULENCE

also known as succulents, are plants that have some parts that are more than normally thickened and fleshy, usually to retain water in arid climates or soil conditions. The word "succulent" comes from the Latin word *sucus*, meaning juice, or sap.

THIAMINE

A B vitamin that plays a role in carbohydrate metabolism.

TOXIC

Any substance which may be harmful to the environment or hazardous to plant health.

TRANSLOCATION

The movement of soluble materials within a plant. Common examples are the movement of food materials from the leaves to storage organs, and the movement of dissolved minerals upward from the roots.

TURGOR

The normal rigid state of plant cells, caused by outward pressure of the water content of each cell on its membrane.

VIGOR

The ability of plants or animals to survive, grow, and thrive.

WILTING

the drooping of plants or shriveling of leaves because of a lack of water, too much heat, or disease.