



Glossaries

Includes the definitions of various terms and parameters associated with the plant growth, physiology, and pathogen defense-related that are mentioned in this SCIP-database.

1. **Transpiration rate-** Is the amount of water transpired by plant per unit leaf area per unit time.
2. **Electrolyte/Membrane leakage-** Solute leaked from cytosol due to membrane damage. Quantification of this reflects the extent of damage to the membrane.
3. **Electron transport rate (ETR)-** Is a light-adapted parameter which directly related to an amount of energy used in photochemistry by photosystem II under steady-state photosynthetic lighting conditions.
4. **Ci content-** Is the intercellular carbon dioxide concentration.
5. **Relative water content (RWC)-** Is the actual water content of the sampled leaf tissue in relation to the maximal water content it can hold at full turgidity.
6. **Stomatal conductance (gs)-** Is a measure of the rate of CO₂ taken in or water transpired through stomata.
7. **Water use efficiency (WUE)-** Amount of water transpired to produce a gram of biomass.
8. **Mesophyll conductance (gm)-** Is the transfer of carbon dioxide from a sub-stomatal cavity/intercellular airspace of the leaf into the chloroplast.
9. **Water potential (Ψ_w)-** A measure of the free energy associated with water per unit volume.
10. **Hydraulic conductivity-** Is a property of vascular plants, soils, and rocks that, describes the ease with which a fluid (usual water) can move through pore spaces or fractures.
11. **Embolism-** When the tension in the xylem conduits becomes too high, xylem cavitation will occur (water column breakage). This results in the hydraulic disconnection of leaves and above-ground parts from roots because xylem conduits are filled with air and water vapor, and this phenomenon is called embolism.
12. **Isotope discrimination-** The uptake by plants of a particular isotope in preference to another isotope of the same element. E.g. Plants prefer ¹²C (lighter-fast diffusive) over ¹³C (heavier-slow diffusive).



13. **Wilt index**- Is the percentage of wilted leaves to that of non-wilted leaves in a plant.

14. **Photosynthetic rate/ Assimilation rate (A)**- Is the amount photosynthetic products (glucose) produced per unit time.

References:



Stress Combination and their Interaction in Plants (SCIP) Database

Website link- <http://www.nipgr.res.in/SCIPdb.php>

