

## TISSUE CULTURE LANGUAGE

*Tissue culture is a relatively new commercial input for the greenhouse industry. The following terms are frequently used when talking about tissue culture. These terms and their definitions may differ slightly from industry to industry.*



**Acclimation/Hardening:** The process of adjusting plants to a different environment by controlling light, temperature, humidity, air movement, and nutrition.

**Agar/Media:** Liquid, or more usually a semi-solid substance, in which plantlets are grown. It may contain nutrients, carbohydrates, plant hormones, and other substances to steer plant growth.

**Aseptic:** Sterile conditions.

**Contamination:** Fungal or bacterial growth within a container usually on or in the agar.

**Deflasking:** The removal and sticking process of tissue culture plantlets.

**Ex Agar:** Without agar; plants can be shipped in containers that do not contain agar.

**Flask/Vessel/Bag:** Containers used to house and produce plantlets. These may also be used to ship plantlets.

**Genetic Drift:** Non-normal or variation of the plants' physical appearance or performance due to mutations.

**In Vitro:** The process of growing a plant in a container outside or apart from its living, original plant.

**Micropropagation:** The process or method of propagation for tissue culture with small plant parts, usually shoot tips in a lab setting.

**Plantlet:** A plant grown from tissue culture that has a growing tip, petioles, and stem; it may also (but not always) have leaf blades, callus, and roots.

**Stage 3 Tissue Culture:** The most commonly available input; another name for plantlets that usually have roots.

**Subculture:** The process of cutting a clump of shoots into smaller clumps or individual shoots during tissue culture production.

**Tenting:** An acclimation strategy during which plantlets are covered with various materials like plastic or cheesecloth to limit dehydration and light intensity.

**Tissue culture (TC):** The category of plants or production inputs grown in a lab setting under sterile to semi-sterile environments.

**Vitrified:** The water-soaked appearance of leaves is often seen when plants have been covered in agar.

**Water Roots:** Roots that have grown in agar. These roots may not take up water well but can continue to grow and develop root hairs after deflasking.