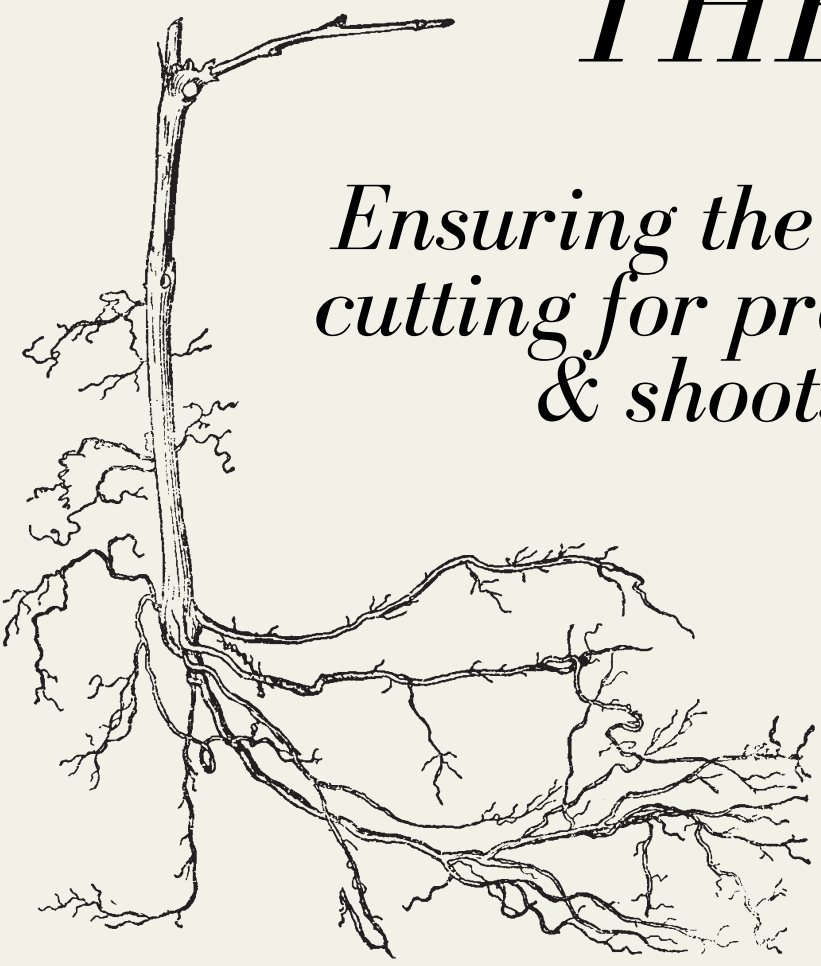


NODES ARE CRUCIAL IN PROPAGATION, THERE'S NO DOUBT ABOUT IT!

Ensuring the presence of at least one node is key when you're taking a cutting for propagation. It's at this node that the potential for new roots & shoots lies dormant, waiting for the right conditions to awaken.



WHAT IS A NODE?

A node is a specific point on a plant's stem where leaves, flowers, branches, & occasionally roots originate.

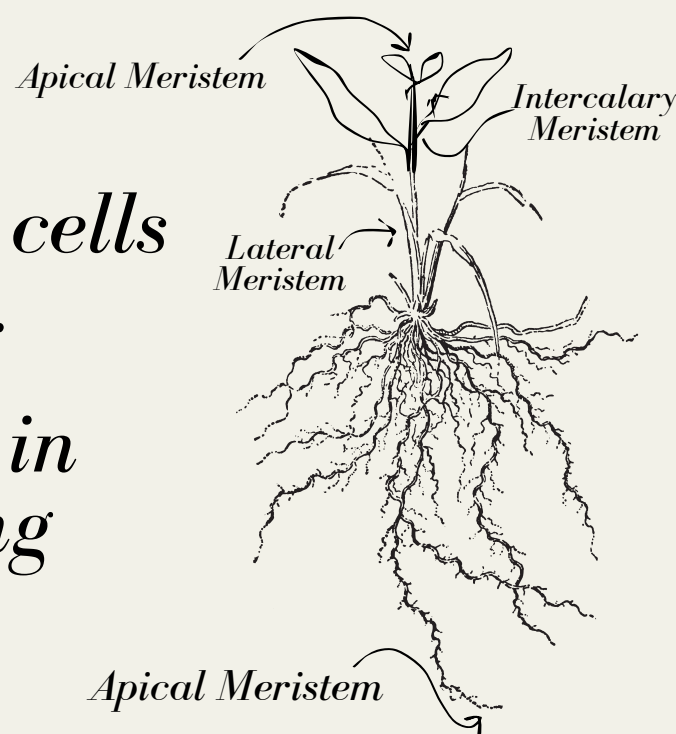
Nodes are able to facilitate new growth because they contain meristematic cells.

Meristematic Cells

Undifferentiated, or unspecialized, cells in plants that have the ability to divide & create new cells.

When it comes to propagation, they differentiate into root cells & initiate new growth.

They also play a role in healing & regenerating parts of a plant after damage.



NODES & PROPAGATION

Root & Shoot Development

Cells at the node are more likely to develop new roots when placed in a suitable environment. Similarly, shoots (stems + leaves) also emerge from the nodes. This ensures that a propagated cutting can develop into a full-fledged plant, complete with stems, leaves, & potentially flowers.

Propagation Success

Cuttings with nodes have a higher success rate compared to those without. Nodes ensure that the cutting has the necessary biological infrastructure to generate new growth.

Species Specific Traits

For certain plants nodes help maintain the species' natural growth habit as they develop from cuttings.

Auxin Concentration

Auxins, a type of plant hormone crucial for root development, are often concentrated around nodes. This hormonal concentration makes nodes ideal for initiating root growth in cuttings.



NODE TO SELF

- In water & soil propagation, make sure the node is in contact with the medium, as this is where the roots will emerge.*
- Always make sure your cutting has at least one node. However, the more nodes your cutting has, the better the chance of successful rooting.*