

Plant Propagation Methods

Plant propagation techniques range from simple to complex methods, each with their own advantage and drawbacks.

The three propagation methods are; propagation by seeds, cuttings and tissue culture. Propagation by seed involves seeds which are mature ovules that produce a seedling. The seedling undergoes various changes throughout its life cycle to reach desired maturity. Its advantages include potential to easily mass produce plants. It requires little technical expertise and equipment is easily available. A large area is not required to germinate seeds and seed is generally cheaper and easier to purchase.

Drawbacks to seeds

Seeds need to be bought from certified retailers otherwise you risk diseases and other problems. Seeds can be sensitive to unfavourable temperature, light, and growing media and lastly, seedlings will need to be periodically thinned out and transferred to larger containers as they develop.

Ultimately, propagating plants by seed is an effective way to mass produce plants. Suitable plants to propagate by seed include, grasses, ground covers, herbs and vegetables.

Propagation by cuttings

The stem is cut and placed in the growing medium to form its own roots. Plants produced by cuttings are identical to the mother plants. Advantages of cuttings are; it makes efficient use of the stock plants therefore a suitable method if the mother plants are in short supply.

Also, plants mature quicker and you know what your plant is going to look like. Disadvantages are that some plants are difficult to root. Special equipment is also required which is

expensive and lastly, care must be taken to source material from healthy disease free mother plants.

Tissue culture

The method allows for mass production of plants from a small piece of parent tissue. Tissue culture is benefited by the ability of producing numerous clones by a single plant or part thereof.

Benefit of tissue culture is that it allows for production of genetically pure disease free plants. Disadvantages are; expert employees are required, the process needs well trained labour. Specialised equipment is needed as well as a lab hence expensive. Plants propagated include orchids and fruit trees.