

which are not possible to grow from seeds.

- Plants grown through vegetative propagation bear fruits early.
- Injured plants can be recovered or repaired through techniques involved in asexual propagation.

Disadvantages of Asexual Propagation

- Diversity is lost in asexual propagation, which is the main reason behind occurrence of diseases in future plant species.
- As many crops are produced with this process, it leads to overcrowding and lack of nutrients.
- New varieties of crops cannot be developed in this type of propagation.
- Crops produced through this process have shorter lifespan than those grown through sexual process.
- Species involved in this process are less likely to resist pests and diseases.

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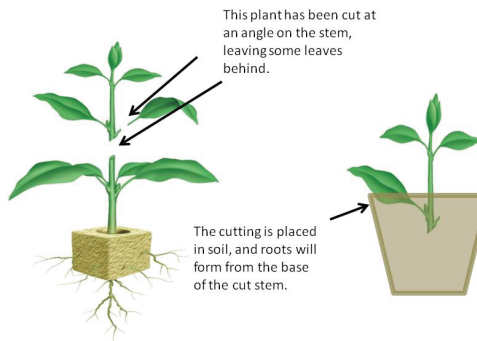
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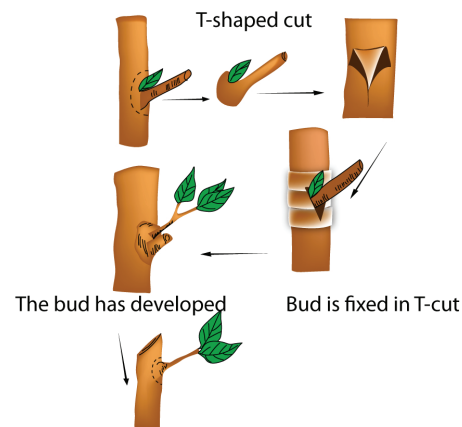
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CUTTING

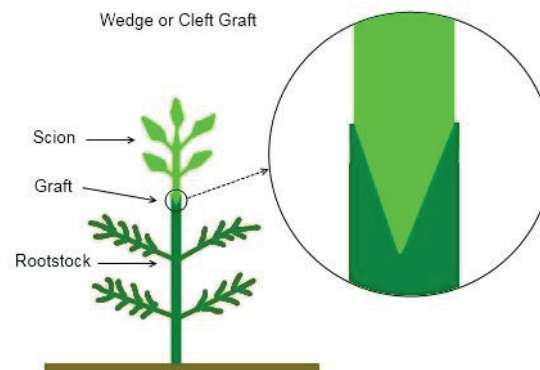


Plant cutting picture at left obtained from Wikimedia Commons, and is used under the GNU Free Documentation License.

BUDDING



GRAFTING



Common Propagation Techniques



What is Propagation?

Propagation is the process of generating new plants from a variety of sources. Plant propagation can also refer to the artificial or natural dispersal of plants.

There are two (2) categories of propagation. These are:

1. Sexual
2. Asexual

As the name suggests, sexual propagation involves contribution of both female and male sexes for creation of new plants. It is a natural process in which a parent species create offsprings that are genetically different from them. The process starts with flowering, followed by pollination, fertilization and ultimately seed formation. These seeds, when sown, result in formation of new plants.

Advantages of Sexual Propagation

- Simplest, easiest and the most economical process among various types of plant propagation.

- This type of propagation leads to better crop species that are stronger, disease-resistant and have longer lifespan.
- Viral transmission can be prevented in this type of propagation.
- Easy storage and transportation of seeds.

Disadvantages of Sexual Propagation

- Seeds take a long time to turn into mature plants
- Seedlings propagated through sexual propagation are unlikely to have same genetic characteristics as that of parent plants.
- Some plant species do not produce viable seeds through sexual propagation
- Plants that do not have seeds can't be propagated through this process.



Asexual propagation is also known as vegetative propagation. This process involves production of species through vegetative parts of the plants such as roots, leaves, stems, bulbs, tubers, etc. In this process, no exchange of genetic information takes place as the offspring is formed through material of a single parent. Thus, the resultant plants formed are identical to the parent plant (also known as clones). Propagation by stem and leaf cuttings, grafting/budding are various methods of asexual propagation processes.

Advantages of Asexual Propagation

- As resultant species formed through asexual processes are genetically identical; useful traits can be preserved among them.
- Asexual propagation allows propagation of crops that do not possess seeds or those