

Seed Propagation

Seed propagation is the method of plant propagation (multiplying, reproducing, or breeding new plants) that is done through the use of seeds. Seeds are made up of three separate parts, and when a seed matures in an optimal environment, it will germinate and actively grow. Seed propagation occurs naturally, but can be done intentionally by growers and farmers.

Seed propagation is how many plants naturally reproduce. Additionally, growers can take advantage of seed propagation by obtaining seeds from plants they wish to propagate or grow. Many gardeners will often save and grow ornamental plants and crops from seeds, especially if the plant has many desirable characteristics. This is because seeds carry the genetic information of the parent plant, and will therefore retain many of the same characteristics of the parent plant.

In seed propagation, seeds can be germinated and planted in individual containers or starter plugs until they form seedlings. Once germinated, these seedlings can then be transferred to larger containers, or planted in beds or fields. In addition, seeds can be sown directly into the ground and allowed to grow. Additionally, seeds can be gathered from parent plants, or they can be purchased at many different retailers.

As an alternative to seed propagation, gardeners can also propagate plants via plant cuttings (clones), grafting, or plant tissues, depending in their skillset, range of equipment they have available, and the plants they are wishing to propagate.

Advantages of Propagating from Seed:

- **Seeds** are the source used most widely
- New cultivars and varieties can be created through sexual **propagation**
- It tends to be cheaper to propagate from **seed**
- The majority of **seeds** are readily available
- Sexual **propagation** seldom requires expensive **propagation** structures
- Large numbers of plants can be produced in minimal space
- Sexual **propagation** can be used to create rootstocks for budding and grafting

- Sexual **propagation** promotes genetic variability which helps plants evolve against pathogens and fluctuating environmental conditions
- Many **seeds** allow for the possibility to be stored.
- Trees grown from **seed** tend to live longer, bear more fruit and are hardier.
- Propagating from **seed** generally carries a lower risk of transferring diseases from the parent plant. (Provided adequate sanitation practices are followed)
- Certain plants can only be raised from **seed**.

Disadvantages of Propagating from Seed:

- Plants propagated from **seed** risk not being true to type (flowers, growth habit etc. won't be the same as the mother plant) due to cross pollination.
- In some cases, Sexual **propagation** can be slower than asexual.
- Some plants produce non-viable **seeds**.
- Some **seeds** are very difficult to germinate.
- The **seed** of certain plants need require to be treated chemically or mechanically to stimulate germination.
- Certain plants don't produce **seed** at all.
- In most cases **seedlings** have to go through an immature phase before maturing and fruiting.
- **Seed** collection can be difficult, in some cases hazardous and timing must be right to ensure the **seed** will be viable.
- Pollination is required to ensure **seed** is viable.