

4.1 INDOOR TRANSPLANT PROPAGATION - KEY POINTS

F1 hybrids vs. open pollinated seeds

Advantages

- + Uniformity
- + Reliability
- + Plants have more fruit, larger yields
- + all female eg. Cucumbers

Disadvantages

- Not natural
- Can't save the seeds
- Creates dependence on seed companies

Direct sowing vs. sowing for transplants

Transplants

- + Can have better control of growing conditions
- + Better germination rate
- + Can establish strong root system
- + Can start sowing earlier in season
- + Gives more time to prepare ground

Direct sowing

- + Good for crops where large numbers required eg. Carrots, radish
- + Does not stunt root crops
- + Saves time, space & effort in propagating tunnel
- + When seeds are cheap can afford to thin them out
- + Can be better for hardier plants eg. Spinach
- + Good for easy to grow crops eg. Rocket

Ways of indoor sowing

Many different types of container can be used. Some examples are –

- + Module trays. These allow sturdy root systems to develop, are easy to water and enable easy handling of the seedlings without disturbing roots.
- + Seed trays. These are useful for fine seeds eg. flowers and for seeds with lower germination rates. Also useful for crops that need to be potted on quickly eg. peppers, tomatoes, and where it is crucial to give heat at start when planting in large numbers eg. basil
- + Pots. These are useful for fast growing plants and bigger seeds eg. Peas, beans and where space is not a problem. Large module trays can be used instead to save space eg. for runner beans

- ✦ Boxes. Useful for deep rooted crops eg. Sweetcorn, beans and where not so much care is needed.
- ✦ Root trainers are mainly used for shrubs and trees but can be useful for good root establishment eg. peas.

Compost

Different types available –

- ✦ Seed compost is finer and has fewer nutrients as these are contained in the seed. Too many mineral salts can harm seedlings.
 - ✦ Multipurpose has average nutrients.
 - ✦ Potting compost has more nutrients and a rougher texture.
- All composts should be moisture retentive and well-aerated.

Sowing seeds

- ✦ Filling containers to right density; not overfilled. Up to pot rims, level on trays.
- ✦ Use warm moist compost.
- ✦ Sowing with glass can make it easier to control numbers of seeds.
- ✦ Other sowing options – seed clicker, by hand, using folded piece of paper.
- ✦ Sieving light layer on top. (some seeds eg. lettuces don't need to be covered)
- ✦ Tamping – make even surface. Press lightly not to disturb seeds.
- ✦ Watering. New seeds should be kept moist but not wet.
- ✦ Depth of sowing. Fine seeds can lie on top with fine covering of compost or vermiculite. Bigger seeds can be sown 1 or 2 inches deep.

Aftercare

- ✦ Watering. Fine rose for small, delicate seedlings. Avoid spluttering or overwatering. Slow and even.
- ✦ For pots a spout without rose or wand can be used.
- ✦ Check by weight or moisture sensor.
- ✦ Ensure roots don't dry out.
- ✦ Light. Take out of propagator as soon as leaves appear.

Temperature.

- ✦ Note different germination temps for different crops.