

What is a seed?

A ready-made but dormant plant waiting for the right conditions for germination and growth.

Sowing most vegetables and salads

Most vegetable and salad seeds do not need pre-treatment before sowing¹. However the conditions must be right.

1. Sow when the **temperature and light levels** are right. Be patient. Knowing where the plant comes from gives good clues. So do seed packets..... Ask experienced gardeners with local knowledge.
2. Provide the **right compost**, firm enough to support the seedling but not so firm as to stop the flow of air and water.
3. **Watering**: keep compost moist - not saturated. Tepid water is best.

Seed compost

Seed compost does not contain much plant food. Seeds come with an in-built food store to see them through germination and up into the light, where they can start to make their own food by photosynthesis.

The Botanics in Edinburgh mix 70% John Innes No 1 seed compost with 30% coir to keep the compost open. Worm casts and mole hills make great additions. Once the first set of true leaves have appeared, the seedlings should be pricked out and potted on into a more nourishing mixture.

Crib based on notes taken by Jessie Roberts at a practical teaching session at Royal Botanic Garden Edinburgh.

¹ Plants have evolved many ways to stop their seeds from germinating in the wrong conditions. Built-in chemicals allow the seed to respond to changes in light and temperature and germinate at the right time. Some seeds have protective waxy coats.

To persuade some seeds to germinate in local conditions, gardeners may need to pre-treat them before sowing to by-pass these defenses. This can involve:

- soaking in water - to help break down coating or leach out chemicals
- scarification – scratching, sanding down or nicking a hard seed coat.
- chilling - some plants from cold climates may need a period of cold after sowing, either outside over winter or in the fridge.

Sowing seed in trays

1. Fill seed tray loosely with compost until heaped above the rim.
2. Level off with flat piece of wood, using up/down sweeping motion.
3. Lift tray and tap it down once on workbench to settle contents.
4. Tamp down gently to around ½ inch below rim. This also makes a level surface to prevent puddling when you water.
5. Seed should be sown at roughly 2 x its own depth.

Small seeds - broadcast sowing

1. Keep pots and trays separate from piles of compost on your workbench!
2. Sow thinly and evenly – saves pricking out and gives sturdier seedlings, less disease. Very small or dark seeds are easier to see mixed with a little sand. Sow half the tray, rotate it and sow the other half.
3. Various methods of sowing:
 - a. Pinch method
 - b. Transfer some seed to palm and tap palm gently with finger of other hand to release seed gently
 - c. Keep seed in packet and tap packet gently.
4. Sieve over with compost – starting and ending beyond edge of tray.
5. Firm in gently with tamper
6. Label: date, name and variety, your name.
7. Watering - you can either:
 - a. Place seed tray in tray of water to about half its depth. Leave until compost is darker and moist but not saturated, then remove and drain. This distributes water evenly and avoids splashing and dislodging fine seeds. It also works better when compost is very dry.
 - b. Water from above with can with fine rose. Start and finish watering beyond edge of tray in gentle sweep to avoid splash. Uneven splashes also encourage fungal diseases in seedlings such as damping off.

Larger seeds – space sowing

1. Space seeds individually in grid pattern.
2. Use dibber to sow at 2 x the seed's depth or press in gently.
3. Cover and firm with tamper as with finer seed.
4. Label and water as with finer seed.