



Growing herbs & veggies from seed



It begins with the seed.
The health of plants starts with the health of seeds.



Growing from seed is much cheaper (and more reliable) than buying seedlings. However, seeds can be *chemically treated* to inhibit disease, deter pests, or trigger germination. This isn't healthy for us, for insect pollinators or the soil. It is unnecessary.

Seeds may be *hybridised* – bred for particular traits that will last one generation only. They are marked as F1 or Hybrid. They are bred to produce a particular characteristic (flavour, colour, size, shape etc.) – or to create a property right. A plant grown from hybrid seed will not necessarily produce the same characteristics in the second generation.

It is best to buy *non-treated* (or 'organic') *open-pollinated* (or 'heirloom') seeds instead. Heirloom seeds will keep their traits across multiple generations, so you can save seeds from the plant to grow again and again.

Save your own seeds to share and swap. Store seeds in a cool, dry place, in a glass jar or plastic. Seeds must stay dry while in storage to keep them dormant. Seeds that are grown at the right time, in the right conditions, in healthy soil and as part of a mixed planting bed will grow strong.



Before you plant

Check a few things:

- Is the seed viable – not out of date or mouldy etc.?
- Is the seed variety best grown in a seed tray or sown directly?
- Is it the right season and conditions for that particular seed?
- What is the length of the growing season and time to harvest?
- What is the final size of the plant? – so you can consider spacing requirements.



When planting a seed:

- Plant at the correct depth – a great general rule is to plant at a depth of 2x the seeds width.
- Don't compact the soil/raising mix – aeration is important for baby roots.
- Water in lightly so as to not dislodge seeds.
- For very small seeds, sow mixed with sand.
- Some seeds germinate best with light, some in the dark.

A seed becomes a seedling

Once watered, the seed must be kept moist or it will die – but don't overwater! In the first stage of growth, seeds do not need food for germination. Wait until the first true leaves appear before feeding. Different seeds need different conditions for good germination and they may germinate at different rates.

Planting a seed is an act of hope. Watching it 'wake up' can be a magical experience. Sometimes it succeeds and sometimes it doesn't, so it's always better to plant more than you think you will need.





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Moving out of home – *‘pricking out’*

A baby seedling needs to ‘move out of home’ before it gets too big, or it will suffer from lack of nutrients and space to grow. If seedlings don’t have enough room for their roots, they become stunted; when they crowd each other from the light, they become leggy.

Moving a baby seedling is called pricking out. Prick out seedlings when dicots have their first true leaves, and monocot blades have uncurled and straightened.

Some seedlings are pricked out into bigger pots to grow for a while before being transplanted into the garden, some are pricked out and transplanted immediately.

Pricking out is a delicate process. Some simple rules:

- Prepare the potting mix/garden bed in advance.
- Protect seedlings from water & heat stress before pricking out.
- Remove the seedling from its tray by holding one of its seed leaves gently & using a small, flat tool (the end of a teaspoon works great) to lift the plant and root ball out.
- Never hold a seedling by its stem – once the stem is broken, the seedling will die – or by its roots.
- Try to disturb the roots as little as possible.
- Plant the seedling at the same depth that it was in the seedling tray.
- Label pots with the date and variety – as much detail as possible.

Room to grow – transplanting or *‘potting up’*

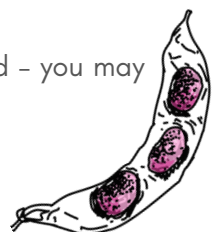
If your seedling is destined to go straight into the garden, you need to consider:

- The best spot – protected from slugs, snails and cutworms which love tender young seedlings.
- Preparing the garden bed weeks before – dig in compost, maybe a sprinkle of lime (check growing guides for each herb or vegetable).
- Crop rotation – don’t plant the same types of plant in the same spot each season.
- Mulching, watering and feeding.
- Seedlings planted into the garden need protection from predators!
- Seedlings can be planted out into the garden at any time before flowering.



If your seedling is going into a new larger pot with potting mix consider:

- Soaking with Seasol mixture to promote growth and feeding regularly.
- Seedlings in pots need regular food and water and are more vulnerable to heat and cold – you may need to move them as the season changes.



Separate out the weak seedlings (many can be eaten as microgreens) and only pot up or plant out the strongest. It’s hard to do but it’s important to be a bit ruthless!





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The quality of your seed raising and potting mix will affect germination and growth - and bad potting mix will kill baby seedlings. Seed raising mix is used for starting seeds; potting mix is used when pricking out baby seedlings for a few more weeks growth in a pot before transplant or to leave to grow in a pot.



Seed Raising mix:

(for seeds becoming baby seedlings) should be:

- Good quality!
- Friable (light with small particles, a sandy texture is ideal) so that baby roots can easily grow
- Aerated, well-drained
- Water-retaining (if you make your own, coir works well)

A good, basic recipe for home-made seed raising mix is* 1 part compost, 1 part sand or perlite, 1 part coir. Or try 2 parts compost, 2 parts coir, 1 part sand and 1 part aged cow manure.

Seeds don't need food to germinate and not much when first developing, so you don't necessarily need to use compost in seed raising mix. If you make seed raising mix without compost, once the seedling pops up it's head, give it some liquid fertiliser until it can be potted up in good quality potting mix or into the garden.

Mix should be kept slightly moist and out of the elements.



Potting mix:

(for bigger seedlings) should be:

- Good quality - it's worth paying extra for 'herb and veggie mix' or 'tomato and veggie mix'
- Aerated, well-drained
- Water-retaining
- Compost based - seedlings need food in their mix once they are past the baby seedling stage



A good, basic recipe for home-made potting mix is* two parts compost, two parts coir, one part sand/perlite and some worm castings.

*Opinions and recipes differ! When starting out buying a good quality seed raising mix and potting mix is easier and cheaper! You don't need much and it's worth making this bit easier!





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Eco-friendly & thrifty tips:

- Old milk bottles can be cut up to make plant labels, old yogurt containers double as pots.
- Wash, disinfect (1 part bleach to 9 parts water) and re-use old pots and seed trays.
- Dickson Nursery has a great pot exchange bin, as do many Bunnings (Majura, Belconnen) or ask Facebook groups (Urban Homesteaders, BuyNothing etc).
- Recycle clean jars as seed storage. Label with plant information and year of harvest.
- Make your own compost - hot or cold - you'll reduce waste and save a fortune on fertilisers.
- Chooks are great for pest control and fertilising.
- Invest in a rain water tank or reuse grey water on the garden.

Plant a diverse variety of plants including flowers - this will bring beneficial insects to your garden increasing pollination. It will also help protect against plant loss from pests and diseases.

Every garden is different, and every season brings new challenges. What works in one region won't work in another. Persevere, seek advice from local experts, and have fun!



Where to Buy Seeds

- Canberra Seed Savers!
- Diggers Garden Club: www.diggers.com.au
- Eden Seeds: www.edenseeds.com.au
- Green Harvest: www.greenharvest.com.au
- The Lost Seed: www.thelostseed.com.au
- The Seed Collection: www.theseedcollection.com.au

- **Canberra City Farm:** www.urbanagriculture.org.au/canberra-city-farm - Community group building an educational hub showcasing sustainable living and urban agriculture with great fact sheets on the website.
- **Diggers Garden Club:** www.diggers.com.au - An Australian heirloom seed company with great information about growing plants.
- **The Micro Gardener:** www.themicrogardener.com - Features as an easy step by step guide to raising seeds.
- **Gardening Australia:** www.abc.net.au/gardening/factsheets - So much great information on growing!
- **The Seed Site:** www.theseedsite.co.uk - Great info about seeds and seedlings with lots of pictures.

Additional Resources

- **Canberra Seed Savers** www.canberraseedsavers.org.au - Gardeners and farmers across the region working to create a living seed bank and a community network for growing, saving and sharing seeds! Resource section on our website.
- **Canberra Organic Growers Society:** www.cogs.asn.au - COGS run gardens all across Canberra and publish Seasonal Growing Guides for the Canberra region - telling you what to sow and when.

