

*How to Transplant
Seedlings Into the*

EDIBLE GARDEN

Ag *for* Life



How to Transplant Seedlings Into the Edible Garden

You've spent months growing beautiful, healthy plants from seed indoors, and now that spring has finally arrived, you are ready to get them outdoors and into the ground. Young plants that have been grown indoors need some acclimating to their new outdoor homes, however. The sudden change of scenery and conditions can lead to transplant shock. Cold, wind, and heat can severely damage – and even kill – them unless they are given the chance to gradually harden off and become used to outdoor living. Signs of transplant shock may include wilting, blanching of leaves and stems, or darkening and drying of plant parts. If young plants are showing signs of transplant shock, resist the temptation to water without checking the soil first. If the soil is dry, it is okay to haul out the watering can, but if not, more water isn't going to perk them up. It may even worsen the situation. Try shading the plants by making a tent using wooden stakes or dowels and a piece of floating row cover (available in most garden centres).



Preventing Transplant Shock

To help prevent transplant shock, spend a couple of weeks hardening young plants off before transplanting them. To do this, take the seedlings in their trays outdoors during the day. Start small: leave them out only two or three hours the first few days, then gradually increase the length of time they stay outside. Bring them in overnight for at least a week, but as you increase the length of time they stay outside, include overnight hours as well. Ideally, the overnight temperatures should hover above 5°C for cool-season crops and at least 15°C for warm season crops.

Do not place the plants in a hot location in full sun; indirect sunlight is best. Keep them out of the wind. If it is raining outside, you can put them outside but shelter them as their pots will not be able to handle large volumes of water. If the temperatures get within a few degrees of freezing, or there is a late snow fall, keep the plants indoors – you don't want to risk harming them. You can resume the hardening off process once the weather warms up again.

As the plants become stronger, you can situate them in more exposed conditions. By the end of two weeks, they should be ready to transplant and live outside!



Cool Season & Warm Season Crops

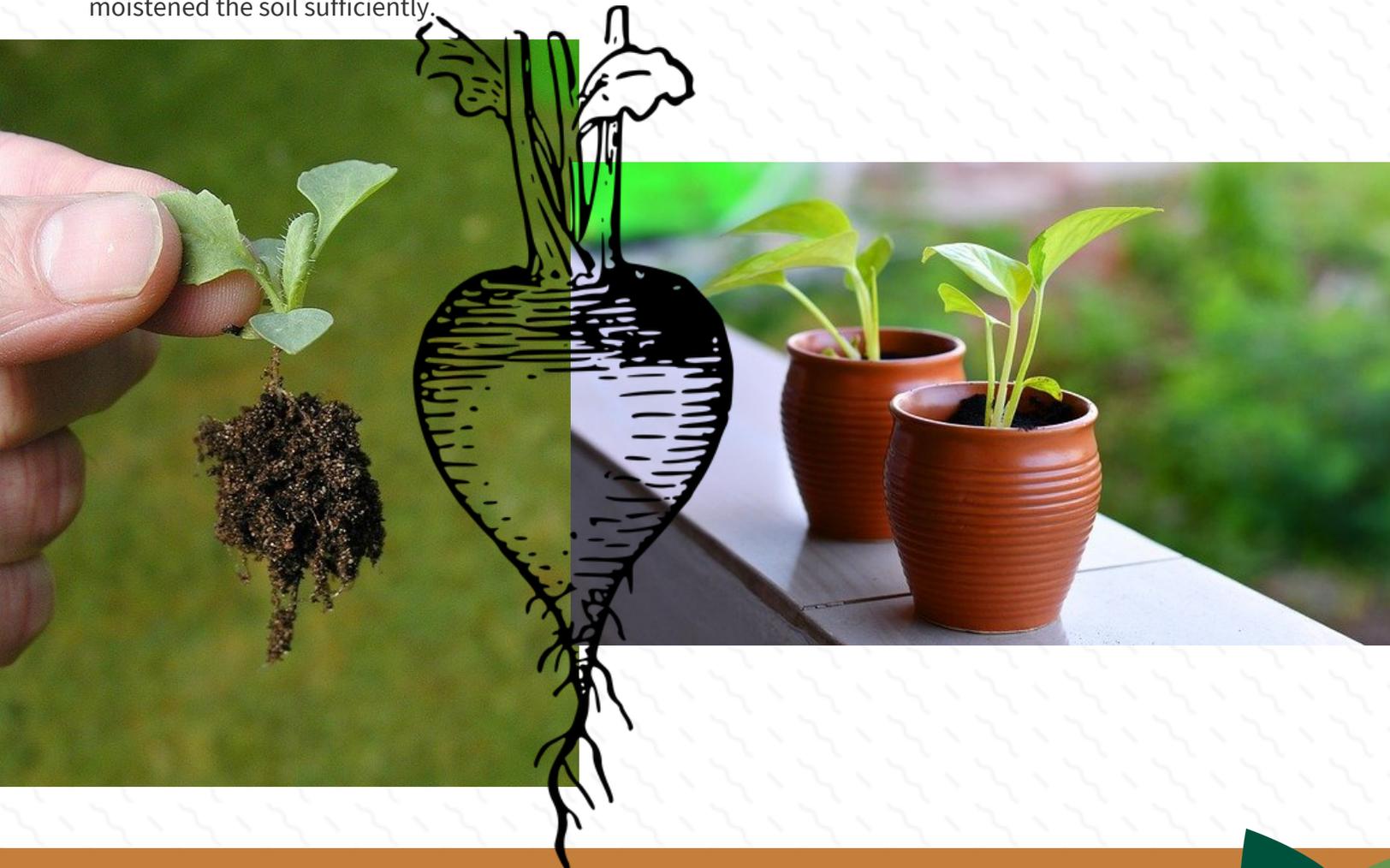
Cool-season crops, such as members of the cabbage family (including kale, broccoli, cauliflower, and Brussels sprouts,) as well as others such as radishes and spinach can tolerate – even prefer, soil and air temperatures that are cool. In the heat of the summer, they may become stressed, which causes them to bolt (prematurely flower, then go to seed). This often renders their yield inedible. Warm-season crops, such as corn, tomatoes, and squash, need warmer soil and ambient temperatures to be much warmer, or they will fail to thrive. Cold temperatures can actually prevent them from flowering and fruiting, and they may not grow to their maximum size. If your weather is still a bit on the chilly side in the spring when you intend to transplant your seedlings that you've grown indoors, hold off if you are working with warm season crops. Wait until the soil and the air warm up. Your cool season crops, however, may be just fine to transplant early. For cool-season crops, the daytime temperatures should consistently reach a minimum of 15°C, while warm-season crops enjoy temperatures around 21°C.



Transplanting Time!

Prepare your garden bed by adding amendments of a one-inch layer of compost. There is no need to dig it in. No other fertilizer is required at this time. The soil should be fluffy and friable; not heavy and full of clods, stones, or other possible impediments to plant roots. The compost you've added can act as a soil conditioner and improve soil texture. You can also add peat moss or coir to help lighten the texture. When you transplant, be gentle – don't break the roots when removing the young plants from their pots. Dig a hole that is large enough to accommodate the entire root ball of the plant. Trying to stuff it into a small hole may be damaging. If you are putting in plants that may require staking or trellising as they mature, set up the supports before you transplant – it will save you a lot of effort and frustration later. Water the plants well after planting. Over the growing season, fertilize the plants every two to three weeks with side dressings of worm compost, or kelp or fish meal. A little fertilizer goes a long way and over-application may be detrimental.

Choose an overcast, calm day to transplant your young plants. If you can do the job in the morning, that is best. Hot sun and wind will cause scorching to the leaves and stems. The plants may wilt, even if you have moistened the soil sufficiently.



It is handy to have some covers at the ready in case the plants need protection from extreme heat or cold. Floating row cover fabric can be draped over stakes and affixed to the ground with landscape pegs. Cloches, which are special covers to place over individual plants, are easy to set up in a hurry. You can either buy them at a garden centre (fancy ones are made from glass; others are manufactured from plastic, resin, or other materials) or make some from items such as cut-up 4 litre milk jugs. Old plant pots may also work. If you are interested in erecting a more permanent structure, a simple cold frame made from wood and either glass, plexiglass, or plastic panels, can act as a way to protect your plants (especially those in containers) from the elements.

In the vegetable garden, you can add a two-inch layer of mulch, such as clean straw, to help moderate the soil temperatures and conserve moisture. Do not push the mulch right up against the plants, as this can cause root rot. The mulch should be pulled back a little bit. Fruit trees and shrubs should be mulched, as well. For these larger, perennial plants, you can bark chips instead of straw.

With careful planning and a few extra steps, you can ensure that your seedlings' transition from indoors to out won't compromise their health!



Ag *for* **Life**

www.agricultureforlife.ca