



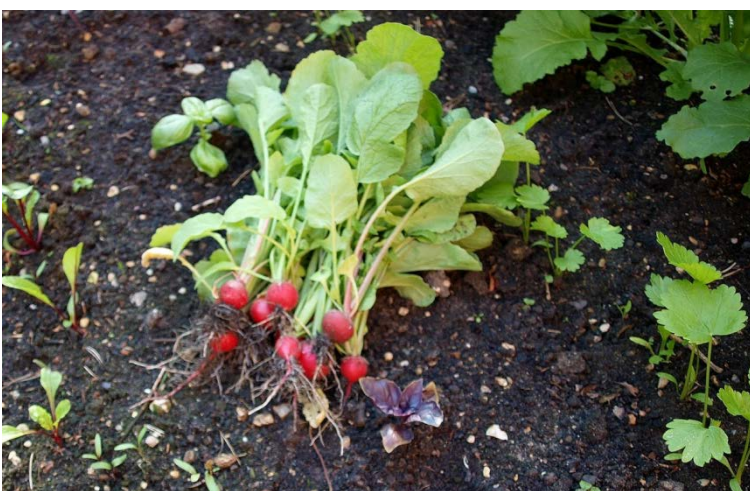
Protected cropping (using greenhouses, polytunnels and even small cloches or bell jars) combined with sowing in modules is an effective way to remain productive throughout the year.



Beans and squash in modules

Quick maturing crops can be sown as soon as the soil begins to warm (around 7°C for many crops).

Catch cropping is a way of getting a speedy harvest from ground that is being used for slow growing vegetables like parsnips. Quick maturing crops like radishes can be sown between them and harvested after around 4-6 weeks without any disruption to the parsnips.



Radish catch crop



Many perennial vegetables are ready for harvest during the hungry gap. Though slower to establish than their annual cousins, most are very hardy and will live happily for years with little effort. They produce a crop every year without having to be sown, watered, or planted out. Perennial vegetables tend to be more closely related to wild plants than their annual counterparts, making them less prone to pests and diseases. Some hungry-gap busting perennial vegetables include:

Sea beet (*Beta vulgaris* ssp. *maritima*) is the wild ancestor of chard and beetroot, full of flavour and at its best in spring when the leaves are fresh and succulent.

Onions (*Allium* spp.) There is an exciting choice of perennial onion, including the 'Welsh Onion' and 'Babington Leeks'. Most of them multiply by forming new bulbs at their base in a similar way to shallots and the green leafy parts can be harvested from mid spring until autumn. Their bulbous parts can be lifted year round, making them a useful supplement to the supply of ordinary onions.



Welsh onions

Rhubarb – 'Timperley Early' in early March

Rhubarb (*Rheum x hybridum*) may seem obvious, but growing a second or even a third variety could extend the season: 'Timperley Early' lives up to its name and can be picked from late February or even earlier if forced. (It is also possible to extend the other end of the rhubarb season with 'Glaskins' Perpetual', which has a lower oxalic acid content so can be harvested later into the year).

Sea kale (*Crambe maritima*) produces tasty leaves and a mass of creamy white, sweet smelling blooms that insects love. Sea kale has seen a resurgence in recent years and is considered a delicacy when forced in spring (using a rhubarb forcer or large up-turned plant pot). Flower heads and younger leaves can also be eaten.



Intercropping

Intercropping involves growing different crops together to make better use of space and avoid monocultures (monoculture is when a single crop is grown extensively, which is undesirable in organic culture). Crops are often combined with one another due to their ability to provide mutual benefits. For example, basil grows well in the shade and shelter of tomatoes, whilst deterring insects such as whitefly.

People have been growing combinations of crops for hundreds of years. One of the most famous of these is the Native American 'three sisters', which involves sweet corn, climbing beans and squashes. The beans are planted at the base of the corn plants which provide them with support, and the squash plants cover the bare earth, to prevent soil moisture from evaporating, and to keep raccoons away from the corn! Sunflowers can also be added to this combination, particularly in very hot regions where the squashes will benefit from the additional shade.



An example of the 'Three Sisters'



In larger scale production, intercropping involves growing long thin strips of different crops - there are many more of each plant than would normally be grown in a garden situation, but this is still a much better situation than monocropping.

Intercropping can be taken further and lead on to polyculture. Polyculture is effectively the opposite of monoculture with many different crops and flowers grown close to one another, with the aim of creating a very diverse and naturally balanced growing space. It can be hard to imagine practising crop rotations in such a mixed growing scheme, but as long as accurate records are kept, this should not be a problem.



Polyculture

In mixed beds, care should be taken that slower growing plants are not overwhelmed by their larger neighbours. It is useful to have plugs or modules of new plants ready to fill gaps as they appear, as surrounded by larger plants, seeds may not get off to a good start.

Under cropping

Under cropping is a form of intercropping. Many crops such as lettuces and spinach will happily tolerate the partial shade of a taller crop. It is possible to grow a second crop or a green manure beneath tall crops such as sweetcorn, climbing beans or peas. This second crop will draw a certain amount of nutrition from the earth but will serve multiple benefits:

- **weed suppression**
- **soil protection and potential fixation of atmospheric nitrogen**



- a second harvest from the same space
- potential forage and habitat for pollinating insects and beneficial predators
- reduced evaporation from soil



Onions and leeks under sown with a green manure

Catch cropping

Catch cropping is a way of utilising the empty space between slow maturing plants whilst they are still small. Quick maturing crops are sown between the slower plants and harvested after just a few weeks without disturbing the main crop. For example, lettuce can be sown between rows of peas or brassicas; after about 6 weeks, the young, tender lettuces can be harvested before the larger crops start to grow too densely and dominate.



Brassicas with a catch crop of lettuce