

The Root of the Matter

When we think of root crops the first thing that usually comes to mind are carrots and parsnips, less common examples would be salsify, scorzonera, hamburg parsley, dandelion and sweet potato. We could also include beetroot, turnip, radish (although botanically it is not the root that we eat for this group but the swollen 'hypocotyl', the junction between the root system and the above ground parts of the plant)



Almost all root crops should be sown directly into the ground in shallow drills in the position where they will grow and mature. Germination can be slow and they will generally need thinning out once the seedlings are large enough to handle by carefully removing some that are growing too close together leaving the remaining young plants 5-15cm apart depending on the variety. It is not recommended to start root crops off in pots or to transplant them because this can damage or bend the young root, leading to deformed and reduced crops.

Generally root crops benefit from a soil pH of about 6-6.5 and more importantly a soil that has been deeply cultivated, is free from large stones and has **not** been recently manured but an even supply of water is important to prevent splitting, this can be difficult to achieve in Limousin summers when weather conditions can be extreme. Covering the ground with a mulch between rows is the best way to manage this. Most root crops are biennial, growing the leafy crown in the first year, they then go into dormancy for the winter, storing all of the sugars in the root for early growth and flowering in the second year before setting seed and dying. As growers we exploit this and harvest them when the roots are at their sweetest but before they start using the sugars to produce the flowers and seeds. Harvest by carefully lifting by pushing a fork into the ground next to the row and gently lifting.

Carrots are hardy plants and can be sown direct in the ground from early March. However they do require a good warm soil temperature of about 8 degrees centigrade for good germination

so early sowings can be sporadic in germination and to be honest later sowings usually catch up. There are myriad varieties of carrots but generally we can categorise them into early and main crop varieties. Early varieties include 'Early Nantes', Chantenay Red Core' and 'Bambino' and these early varieties can be sown successionally every 3-4 weeks from early March until mid June (March sowings will need to be sown under a cloche to warm the soil up). Successional sowing will ensure a continual supply of baby carrots throughout the summer and you generally lift them as you want to use them. (Successional sowing means to sow just a short row at a time to ensure that you spread the harvesting time of a vegetable to avoid a glut)

Main crop varieties such as 'Autumn King' are not really worth sowing early or in succession because they will mature all at the same time in late summer and autumn. They can be sown any time from April to early June as long as the soil is still moist and are either harvested all in one go in early autumn for storage or can be left in the ground, covered in a thick layer of straw and harvested as required throughout winter.

Carrots also come in many different shapes and sizes such as the short rounded types like 'Paris Market Atlas' which are suitable for shallow, heavy or stoney soils and there are tapered varieties good for cooking whole, and large, blunt varieties good for slicing, and eating raw, cooked and for soups. There are some fantastic coloured heirloom varieties available too such as 'Cosmic Purple' and 'Atomic Red'.

Parsnips are treated just like the main crop carrots, there are fewer varieties available and not really any particularly early or 'baby' types and it is generally best to leave until after the first frost before harvesting as it is said to release the sugars and you can leave them in the ground under straw for harvesting throughout winter.



Salsify, scorzonera and hamburg parsley are also grown just like parsnips, (although scorzonera is a perennial plant, we grow it to harvest during the first winter), these heirloom vegetables all

have distinct flavours and are becoming popular again with chefs as a specialist vegetable. Hamburg parsley has a dual purpose as it also yields abundant flat leaved parsley as well as a flavoursome tap root.

Pests and diseases: The main pest is carrot root fly. It is attracted to the distinct smell of the carrot family and lays its eggs on the soil surface at the base of the plants and the subsequent larvae burrow into the roots of the vegetables, eating away at the tissue leaving blackened holes in the root and often leading to secondary infections and rotting. There are three ways to prevent this organically: Firstly, you can grow resistant varieties such as 'Flyaway'. Secondly, companion planting with strong smelling plants will effectively mask the carrot smell so you can intercrop with rows of onions, leeks, garlic, coriander, chives etc. The carrot root fly flies close to the ground so a low barrier round the crop also helps, as does a covering of enviromesh as long as you install it before the flies begin to breed in mid-late May.

If you are not leaving your root crops in the ground under straw for winter harvesting, you should lift them on a dry day in early autumn. Leave them out for the soil to dry on the root and brush off any large clumps of soil. You can then store them in a cool, dark place layered in very slightly damp compost or sand and covered with a layer of soil. The old fashioned method was to build a 'clamp' where they were layered in soil outside and finally covered with a layer of straw and then earth, leaving a small hole or chimney at the top for gas exchange.