

Growing Carrots in the Alice Springs Region

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VARIETIES

There are many varieties and types of carrots that can be grown in the Alice Springs region. The large varieties take up to 16 weeks to mature. There are also selected baby carrots that can be picked after about 10 to 12 weeks when they are 8 to 10 cm long, with tops 15 to 20 cm tall.

PLANTING SEASON

Carrots will grow all the year around in Alice Springs. However, the best results are obtained from early autumn and spring sowings as it is often difficult to get germination in hot weather, while growth can be slow during the winter. Small areas can be planted each month to give a continuous supply. The large varieties can be held-over quite well in the ground and still be tender some months after maturity.

SOIL PREPARATION

Carrots can be grown either on raised mounds or on flat land. Accordingly, the soil should be prepared either by raising a mound (to a height adequate enough to allow the carrot roots to grow) or by digging the soil to an equal depth so as to allow incorporating compost or animal manure into the top 15 to 20 cm, or deeper, if more compost or manure is available. Be careful not to add too much coarse organic material close to planting time, as this can cause divided roots. It is particularly important to have a fairly loose bed for any root/tuber/tuberous crop. It is advisable to rotate the paddock with a mixture of sorghum, broad beans and oats for a season, feed them well with all the nutrients, let them grow profusely, and mix them all into the soil before they set seed and complete this well ahead of seedbed preparation. This improves soil tilth leading to good establishment and production of quality carrots with minimum pest and disease problems. The seedbed should be levelled and firmed by raking.

FERTILISER

Depending on the current knowledge of the soil, assessed through proper testing, the plants can be provided with the required nutrients using either a single nutrient fertiliser, a combined nutrient fertiliser or a mixed fertiliser starting from before planting to top dressing twice or thrice in the production season. Complete granular NPK (nitrogen: phosphorus: potassium) fertiliser may be an option for an easy start. However, there is a whole range of different types of fertiliser in the market to choose from depending on the objectives of either conventional, minimal or complete organic, or biological farming. During the growing season, three side-dressings of a quick-releasing N source can be applied in a row alongside the plants. Foliar nutrients can work better if overhead sprinkler irrigation is used. This will improve the quality of the crop by reducing the volume of hairy roots on the



carrots. Fertiliser should be applied in bands 5 cm away from the seed line and 2 to 3 cm deep. Always follow the manufacturer's recommendations when applying fertilisers.

PLANTING

Carrot seed should be planted directly in rows 30 cm apart, placing the seed 0.5 cm deep and covering lightly. Sowing lines can be made by placing a straight, four-sided piece of timber on one of its corners and making a V shape impression in the seed-bed. This will ensure a firm base of uniform depth on which to sprinkle the seed. The seed should be sprinkled lightly keeping in mind that you are aiming at one successful plant every 5 cm of row. Carrot seed is very fine. To assist even dispersal, seed can be mixed with sand. The sand/seed mixture can then be sprinkled in the sowing lines.

The seed should be lightly covered and firmed down, to give a good contact between seed and soil for speedy germination. The home gardener can use a light piece of board to lightly press the soil on top of the seed.

As the temperature gets hotter, more attention needs to be given to covering the seed and keeping the topsoil moist. Heavy mulching between the rows (either before or after sowing) will greatly assist to achieve this goal. The rows to be (or already) sown can be covered with boards about 4 to 5 cm wide. This covering of the sown seed can remain in place until the first seedlings just emerge above ground level. This cover shades the sown row without excluding all the light and will allow establishment during the most difficult hot conditions. The cover should be left in place while watering until the seedlings begin to emerge and then removed. The cover will protect the soil from disturbance when watering. Disturbance and dislodging of the soil covering the seed is often a cause of poor seedling emergence in hot dry weather.

Once the plants have developed their true leaves, they can be thinned to one every 5 cm. Later, by harvesting some young tender carrots, the spacing can be increased to 10 cm between plants to allow the bigger varieties room to develop to their maximum size. Small varieties need only to be thinned to 5 cm apart.

Baby carrots can be sown in rows 10 cm apart and need only be thinned to 2.5 cm apart.

WATERING

Watering is very critical in the early stages. The soil should be well watered with up to 50 mm (50 L/m²) before planting and the surface should not be allowed to dry out before seedlings emerge.

Mulching and the board cover mentioned above will assist. In the home garden, the rows can be watered with a watering can twice or even three times a day in hot weather, until seedlings have emerged above ground.

About 6 to 8 mm (6 to 8 L/m²) of water will be needed every two or three days initially, increasing to 40 mm (40 L/m²) every four days for fully developed crops in midsummer. Overhead sprinkler irrigation may prove to be good for carrot production.

MANAGEMENT

The area should be kept weed-free and insect pests and diseases should be controlled. Thinning should be done as soon as possible after the seedlings have developed their true leaves. Control weeds from the beginning as carrots are very susceptible to competition from weeds during their early growth.

PESTS AND DISEASES

There are few disease problems with carrots. Aphids, caterpillars and snails sometimes attack the leaves, while nematodes can distort the roots and considerably reduce production. Nematodes are quite common in Alice Springs home gardens. They cause the roots of plants to go knotty and lumpy.

The use of pesticides is restricted. Check with the Entomology Section of the Department of Primary Industry and Fisheries for appropriate chemical control, or refer to www.pestinfo.nt.gov.au.

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