



## OUTSTANDING QUALITIES

- ◆ GOOD FLAVOUR
- ◆ ATTRACTIVE COLOUR
- ◆ WIDELY ADAPTED
- ◆ VERY SLOW TO BOLT

**Scarlet Nantes** is a standard Nantes type for main season production through the autumn season with good colour and flavour. The roots are fairly smooth with a cylindrical shape and blunt tip with a high yield potential. **Scarlet Nantes** is a widely adapted, versatile variety that is often used by producers who require young, mature and slightly larger Nantes type carrots for processing. Field holding ability is good and the variety is very slow to bolt. **Scarlet Nantes** is used for the pre-pack, fresh market, home garden and processing markets with the possibility of use as a baby carrot.

## SPECIAL VARIETAL REQUIREMENTS

- Best suited to early cool season production
- Contact area representative for a sowing guide

CHARACTERISTIC*	SCARLET NANTES
KIND	Carrot ( <i>Daucus carota</i> L.)
TYPE	Nantes
SOWING SEASON	Autumn
MATURITY	Early <u>Warm season:</u> 65 – 70 days from sowing <u>Cool season:</u> 70 – 80 days from sowing
ROOT DIMENSIONS	<u>Length:</u> 18 – 20 cm <u>Diameter at the top (shoulder):</u> 3 – 4 cm <u>Note:</u> Root size is influenced by the plant population
ROOT SHAPE AND TIP	Cylindroconical with a blunt tip
ROOT UNIFORMITY (SHAPE AND SIZE)	Average
EXTERNAL ROOT COLOUR	Orange
INTERNAL ROOT COLOUR	Orange
ROOT CORE COLOUR AND SIZE	Good
ROOT SKIN SMOOTHNESS	Fair
ROOT TASTE/BRUX (SUGAR CONTENT)	Sweet
TOP/FOLIAGE HEALTH AND HABIT	Erect foliage
TOP/FOLIAGE HEIGHT	20 - 30 cm
TOP/FOLIAGE COLOUR	Medium green
LEAF ATTACHMENT	Strong
BOLTING REACTION	Very slow
DISEASE RESISTANCE (SCIENTIFIC)	-
FIELD HOLDING ABILITY	Good
YIELD POTENTIAL	High
SUGGESTED SOWING DENSITY	Density depends on the season, size requirement of the roots and the target market/uses of the final product, however, we suggest: 1 200 000 to 2 500 000 seeds per hectare or alternatively 2 to 3.5 kg of seed per hectare
MARKET USES	Pre-pack, fresh market, home garden
SPECIAL FEATURES, BENEFITS AND REMARKS	Can also be used as baby and young carrots

\* Characteristics given are affected by production methods such as soil type, nutrition, planting population, planting date and climatic conditions. Please read disclaimer.

**Disclaimer:** This information is based on our observations and/or information from other sources. As crop performance depends on the interaction between the genetic potential of the seed, its physiological characteristics, and the environment, including management, we give no warranty express or implied, for the performance of crops relative to the information given nor do we accept any liability for any loss, direct or consequential, that may arise from whatsoever cause. Please read the Sakata Seed Southern Africa (Pty) Ltd Conditions of Sale before ordering seed.

**Resistance:** is the ability of a plant variety to restrict the growth and development of a specified pest or pathogen and/or the damage they cause when compared to susceptible plant varieties under similar environmental conditions and pest or pathogen pressure. Resistant varieties may exhibit some disease symptoms or damage under heavy pest or pathogen pressure (HR = High resistance, IR = Intermediate resistance).

\* **Experimental:** This variety does not appear on the current South African Variety list, but has been submitted for registration.

**Recent version:** Kindly contact Sakata or Area Representative for the most recent version of this Technical Bulletin.





## GENERAL TIPS FOR CARROT PRODUCTION

### Seed size and quality

Like all seed, carrot seed quality is important to ensure a good stand and ultimately final yield. Under varying climatic conditions as experienced in South Africa, experience has shown that smaller seed is more vulnerable and easily lost under conditions of temperature extremes than larger seed. Optimally, seed should be 1.8 to 2.2 mm in size. Seed counts should be between 400 000 and 600 000 seeds per kg.

Although seed germination may be good, the carrot seed is vulnerable to environmental conditions. Sakata conducts range tests on all hybrid carrot seed. The range test predicts the response of seed to different temperatures and will help the management of the crop through germination and young seedling development.

### Irrigation

Irrigation management can have a very profound effect on the development of carrot roots. Typical management practices should be used to impact the growth and size of the carrots.

Over-irrigation can lead to short, stumpy carrots. This can also occur in poorly drained or heavier soils as well as during high rainfall periods. To assist under these conditions, lighter soils should be used along with deeper beds around 20 - 30 cm.

During earlier growth and development, growers often reduce the amount of water being given to the crop to help establish a longer carrot. As water is withdrawn from the field, the carrot root lengthens "in search of water". Withdrawal of water should not bring the plants to wilting so caution should be taken with monitoring the crop. For sandier soils, irrigation would need to be applied sooner than with higher clay soils.

For the last 3 - 4 weeks of production, ensure regular supply of water and do not allow the crop to stress. This will help keep the roots turgid and develop quickly as well as bulk up for weight.

Large amounts of water applied to the crop shortly before harvest can increase sensitivity to cracking during the harvesting process. This crack is longitudinal and often occurs when the carrot is hit or knocked along its length. There is some evidence that a shortage of calcium may increase susceptibility to this.

### Fertilisation

Carrots require specific fertilisation to ensure good production. Firstly, good leaf growth and development are required to establish the crop followed by the encouragement of sugar production and storage.

Therefore, in the earlier stages of growth, the carrot plant responds well to nitrogen stimulating the production of good healthy tops on the plants. Stimulation of sugar production can be boosted after leaf development by increasing phosphates and potassium, but primarily potassium. Calcium is also important to improve the strength of the carrot. Magnesium can also be applied in the later stages of growth to help improve colour. Nitrogen should not be removed as it is important that a small continual supply will maintain healthy leaf production.

Over application of nitrogen at any stage will stimulate leaf production and can negatively affect the production of excess sugars for the roots.

### Disease reaction definitions:

**Resistance:** is the ability of a plant variety to restrict the growth and development of a specified pest or pathogen and/or the damage they cause when compared to susceptible plant varieties under similar environmental conditions and pest or pathogen pressure. Resistant varieties may exhibit some disease symptoms or damage under heavy pest or pathogen pressure. Two levels of resistance are defined:

**High/standard resistance (HR):** plant varieties that highly restrict the growth and development of the specified pest or pathogen under normal pest or pathogen pressure when compared to susceptible varieties. These plant varieties may, however, exhibit some symptoms or damage under heavy pest or pathogen pressure.

**Moderate/intermediate resistance (IR):** plant varieties that restrict the growth and development of the specified pest or pathogen, but may exhibit a greater range of symptoms or damage compared to resistant varieties. Moderately/intermediately resistant plant varieties will still show less severe symptoms or damage than susceptible plant varieties when grown under similar environmental conditions and/or pest or pathogen pressure.

**Susceptibility (S):** is the inability of a plant variety to restrict the growth and development of a specified pest or pathogen.

**Tolerance (T):** is the ability of a plant variety to endure **abiotic stress** without serious consequences for growth, appearance and yield. Vegetable companies will continue to use tolerance for abiotic stress.

**Immunity (I):** Not subject to attack or infection by a specified pest or pathogen.

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