



## OUTSTANDING QUALITIES

- ◆ ALL TIME FAVOURITE
- ◆ RELIABLE AND WIDELY ADAPTED
- ◆ EXCELLENT COLOUR AND FLAVOUR
- ◆ HIGH RESISTANCE TO BACTERIAL WILT

**Rodade** is an adaptable open pollinated, determinate salad tomato. The plants grow to a bush with a height in the region of 100 cm. Fruit has a globe shape, uniform in size and weigh around 100 - 150 g. The yield potential of **Rodade** is high for an open pollinated variety. The leaf canopy is medium dense. **Rodade** has a high resistance to Verticillium wilt race 1 (Vd: 1), Fusarium wilt races 1 and 2 (Fol: 1 - 2) and intermediate resistance against Bacterial wilt race 1 (Rs: 1).

## SPECIAL VARIETAL REQUIREMENTS

- Suitable for production for the fresh market

CHARACTERISTIC*	RODADE
KIND	Determinate tomato ( <i>Lycopersicon esculentum</i> L.)
TYPE	Determinate salad
FIRMNESS	Good
MATURITY	Medium – late
SEASON	Year-round culture in frost-free areas
FRUIT WEIGHT	100 - 150 g
FRUIT SHAPE	Globe
ATTACHMENT POINT	Small, neat
FRUIT COLOUR	Shoulder is light green. Good internal and external colour
UNIFORMITY	Good
LEAF COVER	Very good
DISEASE REACTION (SCIENTIFIC)	<b>High resistance:</b> <i>Verticillium dahliae</i> race 1 (Vd: 1), <i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i> race 1 and 2 (Fol: 1 – 2) <b>Intermediate resistance:</b> <i>Ralstonia solanacearum</i> race 1 (Rs: 1)
MARKETS / END USE	Fresh market
POPULATION GUIDE	10 000 – 16 000 final stand per ha
SPECIAL FEATURES	Trusted variety

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

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

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## GENERAL TIPS FOR TOMATO PRODUCTION

### Climatic requirements

Tomatoes can grow at a wide range of temperatures but for optimum growth, tomatoes prefer temperatures between 10°C (minimum) and 30°C (maximum). The temperature requirements for the different growth stages are given in the table below. Tomatoes do not tolerate frost or waterlogged conditions and these should be avoided at all cost. The most sensitive stages for water and temperature stress are directly after transplanting, during the flowering stage and during the fruit development stages. Water stress during these stages of tomato development will reduce yield and quality.

Developmental stage	Temperature °C		
	Min	Opt	Max
Germination	11	16 - 29	34
Vegetative growth	18	21 - 24	32
Fruit set (night)	10	14 - 17	20
Fruit set (day)	18	19 - 24	30
Red colour devel	10	20 - 24	30
Yellow colour devel	10	21 - 32	40
Chilling damage		< 6	
Frost damage		< 1	
Lethal temperature		< -2	

### Relative humidity

A relative humidity between 65 – 85 % is most beneficial to the development of the tomato plant. High relative humidity levels have a negative influence on pollen release and distribution on the stigma, it also creates favourable conditions for the development of various leaf diseases such as Late blight, Botrytis and Erwinia. The incidence of blotchy ripening increases at high humidity.

On the other hand, low relative humidity may cause lower fertility, because the pollen dries out before germination of the pollen on the stigma. This leads to small deformed or hollow fruit.

At relatively low humidity and high temperature, there is a high and rapid evaporation rate of water from the leaves. In these conditions, the root system may not supply the water volume required for evaporation via the leaves, and in extreme cases, this may lead to the partial wilting of the plants growing tip and increase the incidence of blossom end rot, which stems from the shortage of calcium in the fruit tissue.

### Soil requirements

In South Africa tomatoes are cultivated on different soil types, from heavy clay to light sandy soil and sandy peat. Tomatoes seem to prefer well-drained sandy soils. Good moisture-holding capacity with good drainage is important. Tomatoes grow well at a wide pH range from 5.5 - 7.5 but are sensitive to acid soils and if the pH (H<sub>2</sub>O) is lower than 5.5, additional lime should be applied. The lime should be added 4 - 6 weeks before planting.

Soil preparation depends on the soil conditions and the climatic conditions under which the crop is cultivated.

Raised beds are ideal for tomato production. It helps prevent damage from soil compaction and flooding. Raised beds also improve airflow around the plant roots resulting in reduced disease incidence. Before beds are made, the soil should be properly worked to a depth of 40 cm to enhance aeration as well as water penetration and drainage.

### Irrigation requirements

Tomatoes require frequent irrigation, as the plants use a large amount of water, especially under warm conditions. Tomato roots can penetrate the soil up to 1.5 m but seldom deeper than 60 cm. Water the soil thoroughly to a depth of about 60 cm. Soil type does not affect the amount of total water needed but does dictate the frequency of water application. Lighter soils need more frequent water applications, but less water applied per application. Indeterminate growers need more water than determinate ones.

### General strategies for the control of virus diseases

- Control alternative hosts of the virus, especially weed and volunteer plants
- Control insects as they act as vectors
- Destroy infected plants as soon as possible

### Disease resistance definition

**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.

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