



OUTSTANDING QUALITIES

- ◆ UNIFORM GERMINATION
- ◆ VERY GOOD GRAFTING PERCENTAGE
- ◆ INTERMEDIATE RESISTANCE TO NEMATODE
- ◆ HIGH RESISTANCE TO FUSARIUM RACE 3

Ficus* is a inter-specific tomato rootstock, with strong to extra strong vigour. **Ficus*** has very good germination and grafting percentages. The variety is suitable for long cycle crops. **Ficus*** can be used with multiple segments, is well suited for indeterminate salad tomatoes but can also be used for speciality tomatoes where long cycle production is required. **Ficus*** has very good resistance against all major diseases required for this segment.

SPECIAL VARIETAL REQUIREMENTS

- **Ficus*** can be planted to reduce risk in areas with Fusarium race 3

CHARACTERISTIC*	FICUS*
KIND	F1 hybrid tomato rootstock (<i>Lycopersicon esculentum</i> L.)
TYPE	Inter-specific rootstock
UNIFORMITY	Excellent
VIGOUR	Strong to extra strong
SEASON	Year-round culture in frost free areas
DISEASE REACTION (SCIENTIFIC)	High resistance: <i>Verticillium dahliae</i> race 1 (Vd: 1), <i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i> races 1,2 and 3 (Fol: 1 - 3), <i>Tomato mosaic virus</i> race 0-2 (ToMV:0-2) and <i>Fusarium oxysporum</i> f.sp <i>radicis lycopersici</i> (Forl) Intermediate resistance: <i>Meloidogyne incognita</i> , <i>Meloidogyne javanica</i> (Mi,Mj) and <i>Pyrenochaeta lycopersici</i> (PI)
MARKETS / END USE	Grafting, salad and speciality crops
POPULATION GUIDE	12 000 - 14 000 final stand per ha most varieties trellised to two stems
SPECIAL FEATURES	Good disease package, excellent uniformity

* 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.

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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). 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.

Soil requirements

In South Africa tomatoes are cultivated on different soil types, from heavy clay to light sandy soil and sandy peat's. 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 (H₂O) is lower than 5.5, additional lime should be applied. The lime should be added 4 - 6 weeks before planting.

Irrigation requirements

Tomatoes require frequent irrigation, as the plants remove a large amount of water, especially under warm conditions. Tomato roots can penetrate the soil up to 1.5 m but seldom more than 60 cm deep. Care should be taken to 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 frequency of water application. Lighter soils need more frequent water applications, but less water applied per application.

Iron (Fe) deficiency

On the terminal leaves, chlorosis starts at the margins and spreads through the entire leaf. Initially the smallest veins remain green, giving a reticulated pattern of green veins on yellow, with no necrosis. The symptoms start from terminal leaves and work down to older leaves. The plants are stunted, spindly, and the leaves are smaller than normal. Flowers can be aborted.

Remedies

Foliar spray with 0.02 - 0.05 % solution of iron chelate (FeEDTA) every 3 - 4 days.
Add iron chelate to nutrient solution or increase dosing rate.

Manganese (Mn) deficiency

Symptoms are visible on the middle and older leaves which turn pale. Characteristic chequered patterns of green veins and yellowish interveinal areas can be seen. Later small necrotic spots in pale areas form, the chlorosis is less severe than in iron deficiency, also the chlorosis is not confined to younger leaves as in the case with iron.

Remedies

Foliar spray using high-volume spray of 0.1 % or low-volume spray of 1 % solution of manganese sulphate.
Add manganese sulphate to nutrient solution or increase dosage rate.

Bacterial wilt (*Ralstonia solanacearum*) (*Pseudomonas solanacearum*)

This disease is also known as brown rot or blight. More than 60 host plants are known but tomato, potato and tobacco are most severely affected.

Symptoms

Wilting occur as plants are still green, without foliar yellowing. Grey liquid ooze from cut stem when it is placed into water, there will be a gray-pink discolouration inside the stem. The Bacteria survives in the soil and infects the plants through wounds, and can also be transferred through irrigation water. High soil moisture and temperatures (29 - 35°C).

Prevention and control

Use disease free seedlings, apply crop rotation, weed control, soil fumigation and use resistant varieties.

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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