

# RHAPSODY

## F1 Hybrid Indeterminate Salad Tomato

### OUTSTANDING QUALITIES

- ◆ QUALITY FRUIT
- ◆ VERY GOOD SHELF LIFE
- ◆ EXCELLENT DISEASE RESISTANCE

**Rhapsody** is an indeterminate salad tomato with an excellent disease package. This variety has excellent yield potential and good quality fruit with extended shelf life. The average fruit size is approximately 160 – 180 g when plants are topped after 6 - 8 clusters. **Rhapsody** lends itself to production in the open field and under shade net. **Rhapsody** has high resistance to Verticillium wilt race 1 (Vd: 1), Fusarium wilt races 1 and 2 (Fol: 1 - 2) and Root-knot (Mi, Mj). In addition, it has intermediate resistance to Bacterial wilt race 1 (Rs: 1), Bacterial canker (Cmm), Bacterial spot (Xcv now Xav) and Bacterial speck (Pst) and Tomato mosaic (ToMV).



### SPECIAL VARIETAL REQUIREMENTS

- Do not over fertilise in the beginning with nitrogen
- Very good results when plants are topped after 6 - 8 clusters
- Contact area representative for more information

CHARACTERISTIC*	RHAPSODY
KIND	Indeterminate F1 hybrid tomato ( <i>Lycopersicon esculentum</i> L.)
PRODUCTION TYPE	Under shade net, open field
FIRMNESS	Good
MATURITY	Medium
PLANT VIGOUR	Good
SEASON	Year round culture in frost-free areas
FRUIT WEIGHT	160 - 180 g
FRUIT SHAPE	Deep oblate
PEDUNCLE	Jointed
ATTACHMENT POINT	Small, neat
SHOULDER	Smooth
SHOULDER COLOUR	Light green
COLOUR	Internal: very good; External: excellent
FLAVOUR	Very good
UNIFORMITY	Good
LEAF COVER	Medium
DISEASE REACTION (SCIENTIFIC)	<b>High resistance:</b> <i>Verticillium dahlia</i> race 1 (Vd: 1), <i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i> races 1 and 2 (Fol: 1 - 2) and <i>Meloidogyne incognita</i> (Mi), <i>Meloidogyne javanica</i> (Mj) <b>Intermediate resistance:</b> to <i>Ralstonia solanacearum</i> race 1 (Rs: 1), <i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> (Cmm), <i>Pseudomonas syringae</i> pv. <i>tomato</i> (Pst), <i>Xanthomonas campestris</i> pv. <i>Vesicatoria</i> (now <i>Xanthomonas axonopodis</i> pv. <i>vesicatoria</i> ) Xcv (now Xav) and Tomato mosaic virus (ToMV)
MARKETS / END USE	Fresh market
POPULATION GUIDE	24 000 – 28 000 final stand per ha for production under protection 10 000 – 14 000 final stand per ha for open field
SPECIAL FEATURES	Adaptable, multiple disease resistance

\* 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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**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).

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## GENERAL TIPS FOR TOMATO PRODUCTION

### Bacterial wilt (*Ralstonia 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 occurs as plants are still green, without foliar yellowing. Grey liquid oozes 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 the irrigation water. High soil moisture and temperature (29 - 35 °C).

#### Prevention and control

Use disease free seedlings, crop rotation and weed control. Soil fumigation.

Use resistant varieties or graft onto rootstocks varieties with resistance.

### Tomato spotted wilt virus (TSWV)

TSWV is a very important virus on tomatoes and has the widest host range of any virus (vegetables, ornamentals and weeds). The virus is spread by thrips.

#### Symptoms

First symptoms are visible on the older leaves showing round necrotic spots, with a bronze discolouration. Similar spots or streaks can occur on the stems and petioles, the entire plant becomes dwarfed. Symptoms resembling a wilt can be observed on the plant. Chlorotic ring spots can occur on the fruit.

#### Prevention

Thrip control and strict weed host control. Good sanitation by removing any infected plant material to reduce the amount of inoculum and the use of resistant varieties.

### 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.

### Boron (B) deficiency

#### Symptoms

- The growing points are affected and shoot growth is restricted which leads to withering and even dying off of the growing point.
- The upper leaves show interveinal chlorosis and mottling of leaflets.
- Leaves remain small, curled inward and the deformed smallest leaflets turn brown and die.
- Middle leaves have yellow-orange tints and the veins are yellow or purple.
- The older leaves have a yellowish-green colour
- The growing points on the lateral shoots die off
- Petioles are very brittle and break off easily, clogged vascular tissue

#### Remedies

- Apply a foliar spray as soon as detected of 0.1 - 0.25 % solution of borax
- Add borax to nutrient solution or increase dosage rate

### 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.

**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.

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