



## OUTSTANDING QUALITIES

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

**MFH7032** is a long life determinate variety for open field production. This variety has an excellent yield potential and good quality fruit. Fruit are deep oblate in shape and the average fruit size is approximately 170 - 190 g. **MFH7032** has high resistance to *Verticillium* race 1 (Vd: 1), *Fusarium* wilt races 1 and 2 (Fol: 1 - 2), and Root-knot (Mi, Mj) as well as intermediate resistance to Tomato spotted wilt (TSWV) and Bacterial wilt race 1 (Rs: 1).

## SPECIAL VARIETAL REQUIREMENTS

- Contact the area representative for more information

CHARACTERISTIC*	MFH7032
KIND	Determinate F1 hybrid salad tomato ( <i>Lycopersicon esculentum</i> L.)
PRODUCTION TYPE	Open field
FIRMNESS	Very good
MATURITY	Early
PLANT VIGOUR	Good
SEASON	Year-round culture in frost-free areas
FRUIT WEIGHT	170 - 190 g
FRUIT SHAPE	Deep oblate
PEDUNCLE	Jointed
ATTACHMENT POINT	Neat
SHOULDER	Smooth with slight ribbing
SHOULDER COLOUR	Uniform green
BLOSSOM END	Neat
COLOUR	Internal: very good External: very good
FLAVOUR	Good
UNIFORMITY	Good
LEAF COVER	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) and <i>Meloidogyne incognita</i> (Mi)❖, <i>Meloidogyne javanica</i> (Mj)❖ <b>❖ Nematode resistance can break down when soil temperatures are above 32°C</b> <b>Intermediate resistance:</b> <i>Ralstonia solanacearum</i> race 1 (Rs: 1) and <i>Tomato spotted wilt virus</i> (TSWV)
MARKETS / END USE	Fresh market
POPULATION GUIDE	12 000 - 14 000 final stand per ha (45 - 50 cm in row, 160 cm between rows)
SPECIAL FEATURES	Uniform green shoulders. Good disease resistance

\* 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

### The range test

This is a vigour test and is designed to give the seedling grower additional information about the lot's potential to perform at a range of temperatures (above and below ideal). As with the germination test, all other factors remain constant, it is only the temperature that varies.

Both the radicle count (at 120 hours) and the final germination count are provided for all 6 test temperatures. In nurseries where germination rooms are not used the range test should be looked at very carefully and temperatures should be monitored to ensure good germination. It can be possible that the radicle count is higher than the final germination count, as some seeds that do produce a radicle, may turn out to be abnormal. If this is the case the lower count between the two should be used. Ask your representative for a lot-specific copy of the range test.

### Bacterial canker (*Clavibacter michiganensis* subsp. *michiganensis*)

Bacterial canker is one of the most dreaded and potentially devastating diseases of tomatoes.

#### Symptoms

The plant wilts and lower (oldest) leaves show symptoms of necrosis on the leaflet margins and progress towards the midrib. Frequently only one side is affected. If the stems are split open vertically, creamy white-yellow streaks turning reddish-brown can be seen on the internal tissue. The yellow bacterial cells ooze out of the infected portions of the stem.

#### Prevention and control

Use disease-free seed only, crop rotation (not more than once every 4 years), soil disinfection and sanitation (burning of infected plant material). Use of resistant varieties and/or rootstocks. No chemical control exists.

### 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.

### Blossom-end rot (BER)

#### Symptoms

This physiological disorder looks very much like a typical tomato fruit disease. BER generally occurs at the blossom-end of the fruit and begins with light tan, water soaked lesions, which then enlarge, turn black and leathery.

#### Cause

This disease is usually associated with a localized calcium deficiency in the distal end of the fruit resulting in blossom-end rot. Calcium is not a highly mobile element and deficiency can easily occur with even short periods of water supply fluctuation. Moisture extremes promote the likelihood of BER and rapidly growing plants are more susceptible. Conditions such as with high salt concentrations or the use of ammonium nitrogen might prevent the proper uptake of calcium. High relative humidity might also reduce calcium uptake.

#### Control

Varieties differ in their tolerance to this disease. Proper water control and fertilisation can prevent blossom-end rot. If blossom-end rot occurs during the growing season, calcium based foliar spray may be helpful. Proper soil analysis should be done beforehand to determine your soils nutrient status and to fertilise accordingly.

### Conditions favouring the development of nutrient deficiency in tomato (Macro-elements)

Element	Conditions
<b>Nitrogen (N)</b>	<ul style="list-style-type: none"> <li>- Leaching rains</li> <li>- Soils with low organic matter</li> <li>- Restricted substrate volume</li> <li>- Inadequate fertiliser</li> </ul>
<b>Phosphorus (P)</b>	<ul style="list-style-type: none"> <li>- Low temperatures</li> <li>- Soil compaction</li> <li>- Acid or alkaline soils</li> <li>- Inadequate fertiliser</li> </ul>
<b>Potassium (K)</b>	<ul style="list-style-type: none"> <li>- Light, sandy soils</li> <li>- Leaching rains</li> <li>- Acid soils</li> <li>- Organic soils</li> <li>- Inadequate fertiliser</li> </ul>
<b>Calcium (Ca)</b>	<ul style="list-style-type: none"> <li>- Acid soils</li> <li>- High concentrations of K, NH,</li> </ul>
<b>Magnesium (Mg)</b>	<ul style="list-style-type: none"> <li>- Low or fluctuating soil moisture</li> <li>- High atmospheric humidity</li> </ul>












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