MFH9324

F1 Hybrid Indeterminate Salad Tomato

OUTSTANDING QUALITIES

- **WIDELY ADAPTED**
- **VIGOROUS PLANTS**
- **EXCELLENT YIELD POTENTIAL**
- **UNIFORM FRUIT WITH EXCELLENT QUALITY**

MFH9324 is a very early maturing, strong indeterminate salad tomato for production under protection and open field. The plants have very good vigour, have a medium dense canopy and good fruit set ability. Yield potential and fruit quality are excellent. Fruit are uniform, have smooth shoulders and are oblate in shape and very firm. Fruit colour up early which can be advantageous in the cool season. Percentage marketable yield is very high. **MFH9324** has very long shelf life and a lovely tomato flavour with good sweetness. **MFH9324** is highly resistant to Verticillium wilt race 1 (Vd: 1), Fusarium wilt races 1 and 2 (Fol: 1 - 2) and Tomato mosaic (ToMV).

SPECIAL VARIETAL REQUIREMENTS

- Adequate light and moderate temperatures with normal levels of potassium are required for optimal colour and taste development
- Do not defoliate when the fruit is in the mature green stage

CHARACTERISTIC*	MFH9324
KIND	Indeterminate F1 hybrid tomato (*Lycopersicon esculentum* L.)
PRODUCTION TYPE	Under protection, open field
FIRMNESS	Excellent
MATURITY	Very early
PLANT VIGOUR	Very good
SEASON	Year round culture in frost-free areas
FRUIT WEIGHT	120 - 160 g
FRUIT SHAPE	Oblate
PEDUNCLE	Jointed
ATTACHMENT POINT	Small, neat
SHOULDER	Smooth
SHOULDER COLOUR	Uniform
COLOUR	Internal: very good; External: very good
FLAVOUR	Lovely tomato flavour with good sweetness
UNIFORMITY	Excellent
LEAF COVER	Medium
DISEASE REACTION (SCIENTIFIC)	***High resistance:*** *Verticillium dahliae race 1 (Vd: 1), Fusarium oxysporum f. sp. lycopersici races 1 and 2 (Fol: 1 - 2) and Tomato mosaic virus (ToMV)*
MARKETS / END USE	Fresh market, pre-packing, export
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	Uniform fruit and very good colour and taste

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

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

Climatic requirements
- Peppers grow best when relative humidity (RH) is 65 – 75 %
- Maintain good ventilation (0.5 m/s) to keep conditions favourable for transpiration
- Pepper plants need good light (1 100 – 1 300 µs/m^2 or 60 000 lux). Heavy shade can induce stress, but light shade stimulates growth
- The ideal temperature is around 18 °C (minimum) and 25 °C (maximum)
- Temperatures lower than 15 °C result in very poor growth
- Temperatures higher than 28 °C induce stress

Sun scald
Sudden exposure of fruit to high light intensity (mainly the UV spectrum) can cause sun scald (sunken, pale tissue that often becomes infected by secondary pathogens). This is more of a problem in open field production, and when foliage cover is reduced. Avoid over pruning of the canopy and use varieties with adequate foliage cover.

Flat fruit
Causes
- The occurrence of short-blocky or flat fruit is common for some varieties under high temperature conditions
- Low temperatures can cause flat fruit as fertilisation does not take place when temperature is too low
- Incidence of short blocky fruit increases with high N-concentration in the nutrient solution

Control
- Select varieties suited to the environmental conditions
- Control greenhouse temperature to 18 – 30 °C, or produce during a cooler time of year
- Keep the ratio NO_3-NH_4 to around 4:1 and limit the NH_4 concentration to < 1.0 mmol/ℓ

Blossom end rot (BER)
Causes
- Cultivars differ in their tolerance to this disorder
- BER is usually associated with a localised calcium deficiency in the blossom end of young fruit
- High relative humidity limits transpiration and therefore Ca uptake
- Low humidity may cause BER as water, with dissolved nutrients flow to leaves and not to fruit
- BER incidence increases when the ratio N-NO_3: N-NH_4 is low. The recommended ratio is 4 : 1
- High salinity increases BER

Control
- Remove affected fruit as soon as symptoms are visible
- Choose varieties which are less sensitive to BER
- Reduce stress (temperature, light intensity, salinity, etc)
- Control RH to < 90 % and maintain good ventilation to ensure transpiration and uptake of Ca
- Calcium based foliar spray may help to reduce BER after periods of humid, cloudy weather
- Well balanced nutrient solution

Powdery mildew
In the production of sweet peppers Powdery mildew is the most common disease and of vast economical importance. The only effective way to control Powdery mildew is to have a holistic approach in the production of sweet peppers.

Conditions that encourage the growth of Powdery mildew include temperatures of 15.5 – 27 °C. Powdery mildew spores can survive at temperatures as low as 4 °C, under low light intensity and have the ability to germinate in the absence of water.

Conditions that suppress disease development include water on the plant surface for extended periods of time, day temperatures above 32 °C and night temperatures above 18 °C, direct sunlight or high pH conditions on the leaf surface.

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.

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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