

NADIA

F1 Hybrid Indeterminate Saladette Tomato

OUTSTANDING QUALITIES

- ◆ VIGOROUS GROWTH HABIT
- ◆ VERY HIGH YIELD POTENTIAL
- ◆ ATTRACTIVE SMALL FRUIT OF OUTSTANDING QUALITY

Nadia is an indeterminate saladette type tomato with fruit weighing 90 – 120 g. Plants are very vigorous providing excellent leaf cover. **Nadia** has high resistance to Verticillium wilt race 1 (Vd1), Fusarium wilt races 1 and 2 (Fol1.2) and Tomato mosaic virus (ToMV). The uniform blocky fruits have a bright red colour when ripe and are suitable for long distance transportation when harvested if the fruit has a red colour spot on shoulder.



SPECIAL VARIETAL REQUIREMENTS

- Due to its good vigour, **Nadia** is suitable for open-field production

CHARACTERISTIC*	NADIA
KIND	F1 hybrid tomato (<i>Lycopersicon esculentum</i> L.)
TYPE	Indeterminate saladette
FIRMNESS	Good to very good
MATURITY	Medium
SEASON	All year round culture in frost free areas
FRUIT WEIGHT	90 - 120 g
FRUIT SHAPE	Blocky (egg shape)
ATTACHMENT POINT	Small, neat
FRUIT COLOUR	Fruit shoulder very light green turning red. Excellent internal and external colour
UNIFORMITY	Very good
LEAF COVER	Excellent
DISEASE REACTION (SCIENTIFIC)	High resistance: <i>Verticillium dahliae</i> race 1 (Vd1), <i>Fusarium oxysporum</i> f.sp. <i>lycopersici</i> races 1 & 2 (Fol1.2) and <i>Tomato mosaic tobamovirus</i> (ToMV)
MARKETS / END USE	Fresh market
POPULATION GUIDE	15 000 – 24 000 final stand per ha
SPECIAL FEATURES	Attractive, uniform fruit

* 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).

Recent version: Kindly contact Sakata or Area Representative for the most recent version of this Technical Bulletin.

GENERAL TIPS FOR TOMATO PRODUCTION

Trellising

Indeterminate saladette varieties must be trellised. There are many different systems available, but layering is the most popular in structures, where plants are twisted around a string and as the plant grows the plant is lowered so that picking is done at a convenient height.

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 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.

Pollination and fruit set in greenhouse tomatoes

Good pollination is essential for proper fruit development. Fruit size and shape are influenced by the amount of seeds that develop inside the fruit. If a flower receives a good quantity of pollen and fertilisation is successful the fruit will develop to the characteristics of that variety. A partially pollinated flower will produce irregular and small fruit, since it contains fewer seeds. Various methods are used inside the greenhouse to insure good pollination, tapping of the support wires, electric vibrators and motorised pack-backs that blow air onto the plants all aids in the release of the pollen from the stamen and fall onto the stigma.

Relative humidity

A relative humidity between 65 – 85 % is most beneficial to the development of the tomato plant; this can be seen in the optimal growth and fertility. Higher relative humidity has a negative influence on pollen release and distribution on the stigma, it also creates favourable conditions for disease development of various leaf diseases such as Late blight, Botrytis and Erwinia. In winter it is often necessary to ventilate the greenhouse structure to remove excess humidity, even though this causes the loss of heat.

The incidence of blotchy ripening increases in high humidity. On the other hand low relative humidity conditions, 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. In extreme cases, this may lead to the partial wilting of growing tips and increase the incidence of blossom end rot, which stems from the shortage of calcium in the fruit tissue.

Producing quality fruit

Quality tomatoes can be produced if a few basic principles of fertilisation and irrigation are adhered to. The correct potassium and nitrogen ratio, especially towards the harvest season, help to create fruit with a long shelf life and uniform colour up. Potassium deficiency results in softer fruit and blotchy ripening. Adequate nitrogen levels result in a stronger plant with good yields and quality fruit with good colour and size. Good control of the moisture in the medium and relative humidity can contribute to satisfactory fruit size and any changes may damage these properties.

Seedling production

Seedlings should be grown in a medium which is well aerated, has a good water holding capacity and should have a pH of about 6.5. Peat, bark and vermiculite mixes are generally used. Typical media problems include excessive tannins, low air filled porosity resulting in poor drainage, and green mould build up. Medium should be pre enriched and seedlings should be fertilized. Germination occurs best when the seedling trays are in a germination chamber running at 20 °C and with a high humidity. At the first sign of germination, the seedlings should be moved out onto the racks of the tunnel. Seedlings should ideally be grown at a temperature of 20 °C.

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.

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).

Recent version: Kindly contact Sakata or Area Representative for the most recent version of this Technical Bulletin.