MARIANA

F1 Hybrid Determinate Saladette Tomato

OUTSTANDING QUALITIES

- **EXCEPTIONAL FRUIT SET IN SUMMER**
- **VERY HIGH YIELD POTENTIAL**
- **OUTSTANDING FRUIT QUALITY**
- **EXCELLENT SHELF LIFE**

Mariana is a determinate saladette type tomato with exceptional fruit set in summer. Plants are small to medium in size. Fruit are predominately extra-large, very uniform in shape and have excellent firmness despite having large internal locules. External and internal colour of the fruit are very good and the fruit walls thick. Shelf life is excellent. **Mariana** has high resistance to Verticillium wilt race 1 (Vd: 1) and Fusarium wilt races 1 and 2 (Fol: 1 - 2) and intermediate resistance to Root-knot (Mi, Mj), Alternaria stem canker (Aal) and Gray leaf spot (Ss).

SPECIAL VARIETAL REQUIREMENTS

- Apply 60 % nitrogen before week 6 in order to build a proper support system for high yield
- Contact your area representative for more information

CHARACTERISTIC*	MARIANA
KIND	F1 hybrid tomato (*Lycopersicon esculentum* L.)
TYPE	Determinate saladette
FIRMNESS	Good to very good
MATURITY	Medium late
SEASON	Year round culture in frost free areas, particularly suited for summer production
FRUIT WEIGHT	120 - 250 g
FRUIT SHAPE	Blocky
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:*** *Verticillium dahliae race 1 (Vd: 1), Fusarium oxysporum f. sp. lycopersici races 1 and 2 (Fol: 1 - 2)* ***Intermediate resistance:*** *Meloidogyne incognita (Mi) and Meloidogyne javanica (Mj), Alternaria alternata f. sp. lycopersici (Aal) and Stemphylium solani (Ss)*
MARKETS / END USE	Processing and fresh market
POPULATION GUIDE	15 000 - 20 000 final stand per ha
SPECIAL FEATURES	Excellent fruit set at high temperatures, very high yield potential

* 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

Climatic requirements

Mariana is well suited to production in summer, due to its heat set ability. Mariana set fruit about 7 - 10 days later than other varieties, enabling it to build a proper structure for the very good set of fruit. The heat set ability shows in the amount of seeds and gel forming in the fruit.

Cultural methods

Trellising of Mariana can be well rewarded. Good results are also achieved without staking and if care is taken not to damage the plant during harvest, the plant can sustain production over a longer period. The suggested plant population of Mariana would be between 15 000 and 20 000 plants per hectare depending of the time of transplanting.

Soil analysis

The ideal soil analysis for growing tomatoes would compare to:

pH(H_2O)	5,6
Phosphate	60 mg kg^{-1} (Bray 1)
Potassium	100-250 mg kg^{-1}
Calcium	300-2 000 mg kg^{-1}
Magnesium	120-300 mg kg^{-1}
Sodium	10-50 mg kg^{-1}

Harvesting

Mariana sets a lot of fruit at the beginning and keep on setting longer than normal saladette tomatoes. As the first fruit starts ripening the plant is still flowering and thus has the ability to set and produce more fruit once the first fruit have been harvested. Care should be taken not to damage the plant during the harvesting process. Damage to the plant will result in lower yields and poorer quality fruit due to disease and the loss of leave cover. The better handling of the fruit during harvest will also have a better end product to the consumer.

Marketing

The superior quality fruit of **Mariana** makes this a must for fresh market saladette production. The fruit has excellent firmness, taste, shelf life and produces a large attractive fruit. The variety is also suited for production as a processing variety with the qualities needed for that, depending on the process that is used for processing.

Fertilisation

The high vigor of **Mariana**, requires a specific fertiliser program and it is suggested that more Nitrogen are applied in the beginning, 60 % of the total amount to be applied within the first 6 weeks after transplant. This will enable the plant to build a proper structure for the high fruit loud and delay flowering very early on. Any adjustments to the standard fertilizer program should be made *only after consulting a qualified agronomist which is familiar with the management of Mariana.* For summer it would be suggested to apply 300 kg N, 100 kg P, and 400 kg K and for winter 200 kg N, 75 kg P and 300 kg K. In the nursery the seedling should not be over fertilized, this will result in a long soft seedling and will not produce good results when it is transplanted in the field.

The range test

This is a vigor 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 (120 hours) and the final germination count are provided for 6 test temperatures after 120 hours. In nurseries where germination rooms are not used the range test should be looked at very carefully and temperatures should be monitored to insure 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 copy of a lot specific range test.

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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