

CITRINE

F1 Hybrid Sweet Pepper

OUTSTANDING QUALITIES

- ◆ VERY LARGE, BLOCKY FRUIT
- ◆ EXCELLENT YIELD POTENTIAL
- ◆ DARK GREEN FRUIT TURNING TO BRIGHT YELLOW

Citrine is a dark green to bright yellow, early maturing blocky type sweet pepper with a high yield potential. **Citrine** has a very high percentage large first grade fruit when grown under moderate temperatures. Fruit are uniform and have thick fruit walls. Plants are medium compact and have short internodes. **Citrine** has a high resistance to Pepper mild mottle race 1 and 2 (PMMoV1.2). Mature green fruit are dark green which makes it perfect for high quality green picking especially in the open field. **Citrine** has an excellent yield potential for a yellow variety.



SPECIAL VARIETAL REQUIREMENTS

- Although **Citrine** has a medium compact plant, trellising in the open field is suggested as fruit quality and yield can be improved significantly
- The best quality fruit is formed under moderate temperature conditions and good ventilation
- Yellow peppers require more iron (Fe) than red ones, especially in winter

| CHARACTERISTIC* | CITRINE |
|-------------------------------|---|
| KIND | F1 hybrid pepper (<i>Capsicum</i> L.) |
| TYPE | Blocky, California Wonder type |
| MATURITY | Early |
| FRUIT DIMENSIONS | Approximately 10 x 10 cm (app. 220 - 260 g) |
| FRUIT SHAPE | Short blocky - blocky |
| FRUIT WALL | Thick |
| SMOOTHNESS | Smooth surface with medium shallow lobes. Shoulders can be medium deep. |
| FRUIT COLOUR | Dark green turning to bright yellow |
| PLANT TYPE | Medium compact |
| DISEASE REACTION (SCIENTIFIC) | High resistance: <i>Pepper mild mottle virus race 1 and 2 (PMMoV1.2)</i> |
| PRODUCTION | Under protection and open field |
| POPULATION GUIDE | Open field: 20 000 – 35 000 plants per ha Under protection: 2 – 2.3 stems per m ² |
| USE | Pre-packing and bulk packaging |
| SPECIAL FEATURES | Large fruit which turn from dark green to bright yellow |

* Characteristics given are affected by production methods such as soil type, nutrition, planting population, planting date and climatic conditions. Please read disclaimer.
 WARNING: VARIETY PROTECTED UNDER **PLANT BREEDERS RIGHTS**. UNAUTHORIZED MULTIPLICATION AND/OR MARKETING OF SEED PROHIBITED.

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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 SWEET PEPPER 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 $\mu\text{s}/\text{m}^2$ 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

Despite the need for warm conditions the plant is sensitive to high temperatures. Above 32 °C the flowers are inclined to fall off and few fruits, if any, set at temperatures above 35 °C, especially when these high temperatures are coupled with dry winds. Fruit that form at such high temperatures is usually malformed. The fruit is also very sensitive to sunburn and for this reason Sakata has select varieties that develop well leaf covering to protect the fruit.

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 ppm N-NO₃ : ppm N-NH₄ to around 5:1 and limit the N-NH₄ concentration to < 32 ppm

Blossom end rot (BER)

Causes

- Genetic. Varieties differ in their tolerance to this disorder
- BER is usually associated with a localised calcium (Ca) 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 ppm N-NO₃ : ppm N-NH₄ is < 5:1
- 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 and high pH conditions on the leaf surface.

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