



OUTSTANDING QUALITIES

- ◆ ADAPTABLE AND GOOD VIGOUR
- ◆ UNIFORM FRUIT SIZE AND SHAPE
- ◆ GOOD YIELD POTENTIAL
- ◆ EARLY FRUIT SET

Crispy San is a widely adapted, hybrid sweet snacking pepper for production in the open field and under protection. **Crispy San** has a high yield potential with good large, glossy fruit. The fruit is uniform and approximately 8 x 3 cm in size.

SPECIAL VARIETAL REQUIREMENTS

- **Crispy San** is a compact plant, but Sakata suggests that the plants are trellised and pruned. Plants can be manipulated to balance vigour, leaf canopy and fruit set

CHARACTERISTIC*	CRISPY SAN
KIND	F1 hybrid pepper (<i>Capsicum</i> L.)
TYPE	Snacking pepper – Sweet bite type
MATURITY	Medium
FRUIT DIMENSIONS	Approximately 8 x 3 cm (app. 55 g)
FRUIT SHAPE	Very uniform, elongated tapered
FRUIT WALL	Thick
SMOOTHNESS	Smooth surface with shallow lobes
FRUIT COLOUR	Green turning bright yellow
PLANT TYPE	Compact
DISEASE REACTION (SCIENTIFIC)	High resistance: <i>Tobacco mosaic virus</i> (TMV:0); <i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> races (Xcv:0-3, 7, 8)
PRODUCTION	Open field and protection
POPULATION GUIDE	Open field: 30 000 – 35 000 plants per ha Protection 20 000 – 24 000 plants per ha (multiple stems 60 000 – 72 000 stems per ha) Should be manipulated by pruning of the leaves
USE	Pre-packing and processing
SPECIAL FEATURES	High yield potential, excellent flavour and good Brix

* 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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* **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 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

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 economic 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.

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 the 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

Variety choice

- Know the market preferences (size, colour, fruit quality, packaging etc.)
- Know the climate of the area and the greenhouse (rainfall, temperature, humidity, ventilation and air circulation)
- Know which diseases are prevalent in the area and when they occur most commonly
- Get as much information as possible about each variety
- Each variety has its own requirement regarding ideal climate, trellising method, growth habit and disease resistance. Spread the risk by planting more than one variety.

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