

CIERVA

F1 Hybrid Sweet Pepper

OUTSTANDING QUALITIES

- ◆ EXCELLENT VIRUS RESISTANCE PACKAGE
- ◆ ATTRACTIVE YELLOW BLOCKY FRUIT
- ◆ VERY ADAPTABLE
- ◆ IDEAL FOR PRODUCTION UNDER PROTECTION



Cierva is a blocky green to yellow hybrid pepper, especially adapted for growing conditions under plastic houses with very high temperatures in spring to summer and low temperatures in winter. Flexible production suited well for the early and late non heated markets. **Cierva** does not need pruning and can be grown under the spanish traditional system. Ideally suited for production where viruses are a production problem. **Cierva** has high resistance against Tomato spotted wilt (TSWV), Potato Y (PVY) and Tobamo viruses Tm: PO, P1, P1.2, P1.2.3 (L4).

SPECIAL VARIETAL REQUIREMENTS

- **Cierva** is suited for production under protection during warm season

| CHARACTERISTIC* | CIERVA |
|-------------------------------|---|
| KIND | F1 hybrid pepper (<i>Capsicum L.</i>) |
| TYPE | Blocky |
| MATURITY | Medium |
| FRUIT DIMENSIONS | Approximately 10 x 10 cm (app. 250 g) |
| FRUIT SHAPE | Blocky |
| FRUIT WALL | Thick |
| SMOOTHNESS | Smooth surface with shallow lobes |
| FRUIT COLOUR | Green turning golden yellow |
| PLANT TYPE | Indeterminate |
| DISEASE REACTION (SCIENTIFIC) | High resistance: <i>Tomato spotted wilt virus (TSWV)</i> , <i>Potato Y virus (PVY)</i> and <i>Tobamo viruses Tm: PO, P1, P1.2, P1.2.3 (L4)</i> |
| PRODUCTION | Under protection |
| POPULATION GUIDE | Under protection: 2 – 2.3 stems per m ² |
| USE | Pre-packing and bulk lose |
| SPECIAL FEATURES | Excellent virus resistance for production under protection. Widely adapted |

* 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 SWEET PEPPER PRODUCTION

Seedling production

- The Sakata Range Test is available for hybrid peppers and is used to determine suitable germination temperatures of a specific seed lot.
- Cold sensitivity: low temperatures have a detrimental effect on germination. Seed will not germinate at temperatures below 15 °C.
- Pepper seedlings should be transplanted before root growth becomes stunted. It is suggested to transplant seedlings from 200-cavity trays when the first pair of true leaves is fully extended. Seedlings in larger cavities can be transplanted later.
- Make sure to plant seedlings in deep enough cavities to avoid J-roots and subsequent poor growth.

Poor shelf life

- Wilted fruit has a compromised shelf life, so avoid harvesting in the heat of the day. Cold storage conditions should be maintained at a consistent 8.3 – 9 °C.
- Temperature fluctuations lead to condensation and bacterial rotting, higher temperatures lead to ripening, and lower temperatures result in cold injury.

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.

Fruit cracking

- This defect is often a problem with high diurnal temperature swings and high humidity at night, for example in spring and autumn.
- Fruit become very turgid at night as a result of water uptake. If the humidity is very high, little transpiration takes place and eventually fruit cracks as a result of the pressure in the fruit wall.
- Reduce humidity in the greenhouse through ventilation before sunrise.
- 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.

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/m² 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.

Unmarketable fruit

Malformed, sun scalded, cracked or diseased fruits must be removed as soon as possible to allow the plant to set new fruit. If plants lose leaves due to disease, young fruit should be removed so the plant can restore the balance between fruit (nutrient sink) and leaves (nutrient source).

- Do not irrigate in the late afternoon.
- Application of Calcium as a foliar spray every two weeks can reduce cracking.

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.

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