

# EL REY

## F1 Hybrid Hot Pepper

### Experimental

#### OUTSTANDING QUALITIES

- ◆ TRUE JALAPEÑO TYPE
- ◆ LARGE FRUIT
- ◆ WIDELY ADAPTED
- ◆ VERY HIGH YIELD POTENTIAL



**El Rey** is an early maturing hybrid hot pepper of the Jalapeño class. The compact plants have a high resistance to Bacterial spot races 1, 2, 3 (Xcv: 1, 2, 3) and produce very high yields of large, pendent fruit. The pungent, thick-walled fruit are a dark green colour when immature. The fruit turn to a dark red colour when mature ripe. Typical of Jalapeño type fruit, **El Rey** shows light cracking when fruit matures.

#### SPECIAL VARIETAL REQUIREMENTS

- **El Rey** may be grown as an indeterminate plant when the plants are grown under protection and are trellised

| CHARACTERISTIC*               | EL REY  |
|-------------------------------|---|
| KIND                          | F1 hybrid hot pepper ( <i>Capsicum</i> L.)  |
| TYPE                          | Jalapeño type   |
| MATURITY                      | Early (85 days after transplant)  |
| FRUIT DIMENSIONS              | 6 - 9 x 2.5 - 3.5 cm  |
| FRUIT SHAPE                   | Tapered   |
| FRUIT WALL                    | Thick   |
| SMOOTHNESS                    | Very smooth   |
| FRUIT COLOUR                  | Dark green turning to dark red  |
| FLAVOUR                       | Very hot  |
| PLANT TYPE                    | Uniform compact bush  |
| BEARING HABIT                 | Pendent   |
| DISEASE REACTION (SCIENTIFIC) | <b>High resistance:</b> <i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> races 1, 2, 3 (Xcv: 1, 2, 3)     |
| PRODUCTION                    | Open field and under protection   |
| POPULATION GUIDE              | <b>Open field:</b> 25 000 – 35 000 plants per ha<br><b>Under protection:</b> 2 – 2.5 stems per m <sup>2</sup> |
| USE                           | Pre-pack, bulk packaging and processing   |
| SPECIAL FEATURES              | Large fruit with cracking typical of Jalapeño fruit   |

\* 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).

**Experimental:** This variety does not appear on the current South African Variety list, but has been submitted for registration.

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



## GENERAL TIPS FOR HOT PEPPER PRODUCTION

### Variety choice

- Know the market preferences re size, colour, fruit quality, packaging, etc
- Know which diseases are prevalent in the area and when they occur most commonly
- Get as much as possible information about each cultivar
- Each variety has its own requirement regarding ideal climate, growth habit and disease resistance.

### Climatic requirements

- Peppers grow best when relative humidity (RH) is 65 – 75 %
- 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 for peppers is around 18 °C (minimum) and 25 °C (maximum)
- Temperatures lower than 15 °C result in very poor growth. Temperatures higher than 28 – 30 °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.

### Blossom end rot (BER)

#### Causes

- Genetic. varieties differ in their tolerance to this disorder
- BER is usually associated with a localized calcium 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
- 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.) where practical
- Calcium based foliar spray may help to reduce BER after periods of humid, cloudy weather
- Well balanced nutrient solution.

### Seedling production

- The Sakata Range Test is available for hybrid peppers and is used to determine suitable germination temperatures of a specific seed lot
- 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. Make sure to plant seedlings in deep enough cavities to avoid J-roots and subsequent poor growth

### Sunscald

Sudden exposure of fruit to high light intensity (mainly the UV spectrum) can cause sunscald (sunken, pale tissue) that often becomes infected by secondary pathogens. This is a common problem in open field production and when foliage cover is reduced.

### Crop rotation

Pepper crops should be rotated so that peppers are not planted in the same soil more than once in 3 years. Other related crops that should not be grown for 3 years before peppers, include potato, tomato, eggplant, groundnut, tobacco and cowpea.

### Flower and fruit drop

Flower and fruit drop caused by high temperature (> 30 °C), low light intensity, especially when temperature is high, number of fruit already on the plant, poor leaf canopy and virus infection, especially Cucumber mosaic virus.

### Disease reaction definitions:

**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.

**Susceptibility (S):** is the inability of a plant variety to restrict the growth and development of a specified pest or pathogen.

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