



**RoyalVanZanten**

## *Cultivation of Celosia Venezuela Caracas®*

### **General information**

Celosia is a short-day plant for indoor cultivation. After sale it can be placed both indoors and outdoors. In the garden it makes an excellent border plant, flowering for over 3 months. The plant does not require much attention. Cultivation can start from week 6 in modern (light) greenhouses and 2-3 weeks later in older greenhouses. The total cultivation time will vary from 7-10 weeks from insertion.

The following varieties are available:

- Celosia Venezuela Caracas® Dark -small purple panicle
- Celosia Venezuela Maracay® -small pink panicle

### **Basic stock**

Celosia cuttings are supplied as unrooted cuttings. The cuttings are treated with a rooting hormone prior to delivery.

As Celosia is sensitive to botrytis the cuttings must be inserted as soon as possible after delivery.

### **Pot size**

Celosia can be cultivated in pots of various sizes.

In a 9-12 cm pot with 1 cutting.

Or in bowls with 3-5 cuttings.

### **Rooting**

Celosias should preferably be rooted in a separate department.

Lighting is recommended during the rooting phase. Use cyclical lighting with lamps from 150 watts (15 watts per m<sup>2</sup>) or assimilation lamps (2500-500 lux) for a day length of 18 hours.

Insert the unrooted cuttings directly into the final pot or bowl. After potting cover until Easter with transparent film and then with a milk-white film, which must not touch the cuttings. Carry out a preventive spraying against botrytis / rhizoctonia.

The rooting period varies from 14 days in the spring to 9 days from May.

The film can be removed after the cuttings have rooted (preferably in the evening).

It is important not to delay removal of the film in order to prevent stretching.

### **Potting on**

Stick Celosias in an airy, porous potting compost containing 55% tilled peat (Norwegian), 35% garden peat and 10% Perlite, to which a slow-release fertiliser has been added, e.g. 5 kg Dolokal, 0.7 kg PG mix + 0.7 kg calcium nitrate or 2-3 kg Osmocote per m<sup>3</sup>. Excellent results can also be obtained with a standard potchrysanthemum compost.

### **Topping**

Carry out the topping in the rooting area. This should be done 7-10 days after sticking.



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### Spacing

If a heavier quality is required, the Celosias can be put in their final spacing 14-17 days after sticking. After topping, continue to provide long day for a few more days.

Place the Celosias in their final spacing in the short day. For short day, see Blacking Out. The final distances should be as follows:

For 9 cm pots allow 42-45 per m<sup>2</sup>.

For 10.5 cm pots allow 28-32 m<sup>2</sup>.

For 12 cm pots allow 26-28 per m<sup>2</sup>.

For bowls allow 14-16 per m<sup>2</sup>.

### Blacking out

The Celosia is a short-day plant, i.e., it only produces a bud when the night is longer than the day. In order to obtain buds there must be 14 hours of blackout.

For instance, from 1800 to 0800 hours.

The reaction time is 6.5 - 7 weeks.

### Climate

Set the temperature for the whole cultivation period to 20-22°C, with a high relative humidity. The ventilation temperature should be set at 1°C above the heating temperature. A light increase of 2-3°C can be set for the ventilation.

As Celosia is a subtropical plant, it likes a high RH and a lot of light.

### Growth regulators

Growth can be regulated with Cycocel (active substance 740). Use a concentration between 100-150 ml per 100 l water.

Apply the product for the 1st time when shoots of 3-3.5 cm are visible.

A second application can be applied after 7-10 days. The plant must in that case be on cell tension as yellow stains may otherwise occur.

### Fertilisation

Apply additional fertilisation with a K-N ratio of 1 : 2. Set the EC at 1.5 - 2.0.

Target values for fertilisation of Celosias in mmol:

| EC  | PH  | NH4  | K   | Na   | Ca  | Mg  | NO3 | Cl   |
|-----|-----|------|-----|------|-----|-----|-----|------|
| 1,0 | 5,8 | <0,1 | 3,8 | <1,0 | 2,1 | 0,9 | 6,0 | <1,0 |

| SO4 | HCO3 | P   | Fe  | Mn  | Zn  | B  | Cu  |  |
|-----|------|-----|-----|-----|-----|----|-----|--|
| 1,0 | 0,5  | 0,5 | 8,0 | 2,0 | 2,0 | 15 | 0,7 |  |

An example of fertilisation using A and B bins is as follows:

#### Bin A

100 kg calcium nitrate  
5 kg DTPA iron chelate  
5 kg Magnitral  
300 g of a mixture of trace elements e.g. Microsol blue

#### Bin B

50 kg potassium nitrate  
25 kg Epsom salts  
5 kg mono potassium phosphate

Continue using the mixture from bin A until the panicles are beginning to show colour.



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### **Plant protection**

Celosia is resistant to diseases and pests but a single preventative application against aphids and thrips is nevertheless recommended.

### **Sale**

Celosias can be presented for sale with or without sleeving. If temperature-controlled transport is used, the temperature must not fall below 10°C.

### **Conclusion**

Royal Van Zanten wishes you every success with the cultivation of Celosia.

This cultivation description is intended for information only. Royal Van Zanten cannot be held liable for any errors (or mistakes) arising from said advice.

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