

Cultural Information for: Celosia Flamma Annual
Common Name: Celosia
Botanical Name: Celosia plumosa
Seed Count: 45,000/ounce 1,600/gram
Optimum Germination Temperature: 70-75°F / 21-24°C
Optimum Growing Temperature: 65-75°F / 18-24°C
Optimum pH: 5.8 – 6.2
EC – Plug: 0.4 – 0.8 mmhos/cm (1:2) / 0.9 – 2.0 (SME) / 1.1 - 2.6 (Pour Thru)
EC – Finishing: 0.9 – 1.3 mmhos/cm (1:2) / 2.1 – 3.5 (SME) / 2.7 - 4.6 (Pour Thru)

Plug Stage: 4 weeks (288 / 12 x 24 tray)

Stage 1 (days 1-10) - Sow seeds in a well-drained soil mix and cover lightly with vermiculite. Provide a soil temperature of 70-75°F / 21-24°C. Germination takes place in 7 to 10 days. The root system is very delicate, avoid sowing in open flats and instead sow directly into plug cells.

Stage 2 (days 10-19) - After seedlings emerge, place plug flats in a well-ventilated area and reduce the temperature to 65-70°F/18-21°C during the day and 61-65°F/16-18°C at night. Fertilize plugs lightly with 50-100 ppm N. Over watering will promote disease; especially damping off and botrytis.

Note: *Celosia Flamma is a facultative short day plant. To promote vegetative growth and avoid premature flowering, produce under a long day photoperiod (>14 hours) starting at seedling emergence.*

Stage 3 (days 20-27) - Maintain good air circulation. Celosia is sensitive to day length and any type of stress, (moisture, high temperature, root banding), will cause premature budding and stunted growth later in production.

Stage 4 (day 28) - Seedlings are ready for transplanting at the 2-3 leaf stage. Holding the plugs too long in the plug tray will stunt future development of the plant and cause premature budding.

Transplanting to flowering: 5-6 weeks

Transplanting: Celosia has a soft stem and delicate root system. To avoid damage, use a plug popper to dislodge plugs and only handle seedlings by one leaf. Also avoid deep transplanting to prevent rhizoctonia.

Media: Select a well-drained media with a low starter charge.

Temperature: Maintain the plants at a temperature of 65-75°F/18-24°C. Avoid temperatures below 61°F/16°C.

Light: Applying long days (>14 hours) early in productions builds plant bulk.

Growth Regulator: Not necessary. Do not pinch.

Fertilization: Celosia must be kept growing vigorously in order to reach favorable size before flowering begins. Apply 100-150 ppm N as needed to maintain strong growth. *It is important to supply sufficient amounts of potassium in the fertilizer.* A lack of potassium causes smaller and abnormal shaped flowers. Boron deficiency causes deformed foliage and a witch’s broom effect, so apply 0.25 ppm in the fertilizer to avoid a deficiency.

Diseases: Celosia is susceptible to botrytis, downy mildew, pythium and rhizoctonia.

Insects: Aphids, cut worms, nematodes, and thrips.

Culture Watch Point: Celosia is sensitive to vaporized gases of certain herbicides like methylurea, methoxy, dichlorophenyl and dichlorobenzonitrile. Do not drench plants with the chemical Mefenoxam (SubdueMaxx) which causes phytotoxicity.

Natural day length condition. (Northern Hemisphere)

Sow	Flowering
March to June	June to September

Crop timing

Container	Crop time from sowing
Jumbo Packs	8 weeks (green)
6 inch / 15 cm.	12 weeks (in flower)

Marketing: Celosia Flamma is recommended for both spring and autumn sales in 6 inch/15 cm. pots sold in full color with 1-3 plants per pot. Allow 2-3 weeks extra production time when planting 1 plant per pot.

“All information given is intended for general guidance only and may have to be adjusted to meet individual needs. Cultural details are based on North American conditions and Sakata cannot be held responsible for any crop damage related to the information given herein. Application of recommended growth regulators and chemicals are subject to local and state regulations. Always follow manufacturer's label instructions. Testing a few plants prior to treating the entire crop is best.”