

Celosia Dracula

(*Celosia cristata*)

Germination

Approximate seed count (coated): 28,550 S./oz. (1,250 S./g)

Media

Use a well-drained, disease-free media with a pH of 5.8 to 6.2 and a medium initial nutrient charge (EC 0.7 to 1.2 mS/cm).

Sowing

Sow 1 seed per cell in a 288 or larger plug tray. Cover seed lightly with vermiculite. Use a preventative treatment against soil-borne diseases.

Sowing timing

Celosia Dracula can respond to daylength at a very early stage. Due to the negative effects of extreme short or long daylength (see Photoperiod in Growing On to Finish below), it is not recommended to sow seed at natural daylength shorter than 11 hours or longer than 15 hours unless using limited inductive photoperiod (LIP). A 3 to 4-week period of 12 to 14 hours LIP treatment after sowing (during plug stage) will work well to speed up flower timing and reduce flower non-uniformity and deformation when produced in unfavorable daylengths.

Stage 1 – Germination takes 2 to 4 days.

Soil temperature: 68 to 72°F (20 to 22°C)

Light: Light is required.

Moisture: Keep soil moist (level 4) in Stage 1.

Humidity: Maintain 95 to 98% relative humidity (RH) until cotyledons emerge.

Growth Regulators: If necessary, paclobutrazol (Bonzi, Piccolo, Piccolo 10x) 3 to 5 ppm (0.75 to 1.25 ml/l, 0.4% formulation) spray at radicle emergence stage can be used to control early hypocotyl stretch. This treatment could delay flowering about 7 to 10 days.

Optional PGR treatment: See Stage 3 Growth Regulators below.

Plug Production

Stage 2

Soil temperature: 68 to 72°F (20 to 22°C)

Light: Up to 2,500 f.c. (26,900 Lux)

Moisture: Maintain soil moisture at the same level (level 4); don't allow the media to dry out.

Fertilizer: Apply fertilizer at rate 1 (less than 100 ppm N/less than 0.7 mS/cm EC).

Stage 3

Soil temperature: 68 to 72°F (20 to 22°C)

Light: Up to 2,500 f.c. (26,900 Lux)

Moisture: Maintain the moisture level constantly medium moist to medium wet (level 3 to 4). Don't allow the media to dry out as water stress could cause premature flowering.

Fertilizer: Apply fertilizer at rate 2 (100 to 175 ppm N/0.7 to 1.2 mS/cm EC).

Growth Regulators: PGRs are not necessary if paclobutrazol has been sprayed at Stage 1. If choosing optional PGR treatment, daminozide (B-Nine, Alar, Dazide) can be used at early Stage 3 with the rate of 1,500 to 2,500 ppm spray. This treatment will not be as strong as paclobutrazol in controlling hypocotyl stretch, but may not delay flowering timing.

Stage 4

Soil temperature: 68 to 72°F (20 to 22°C)

Light: Up to 5,000 f.c. (53,800 Lux)

Moisture: Keep plug trays uniformly moist.

Fertilizer: Same as Stage 3.

Growing On to Finish

Media

Use a well-drained, disease-free, soilless media with a pH of 5.8 to 6.2 and an EC of 0.75 mmhos/cm in a well-balanced fertilizer.

Temperature

Nights: 60 to 65°F (16 to 18°C)

Days: 65 to 72°F (18 to 22°C)

Average daily temperature (ADT): 65 to 72°F (18 to 22°C)

Light

Maintain light levels as high as possible. Daily light integrate (DLI) of =12 mol. m⁻².d⁻¹.

Photoperiod

Celosia Dracula is a facultative intermediate-day plant. It will flower the fastest at daylengths from 12 to 14 hours. Daylengths shorter than 11 hours or longer than 15 hours will significantly delay flowering.

Daylength will also affect flower uniformity and form. Daylengths that are too short (10 hours or shorter) will cause non-uniform and deformed flowers. Daylengths that are too long (16 hours or longer) will cause fasciated flowers and leaves clustered close at the top of the plant.

Celosia Dracula can respond to daylength at a very early stage. It is not recommended to sow seed at natural daylengths shorter than 11 hours or longer than 15 hours (see above sowing timing).

Irrigation

Maintain constantly moist media.

Fertilizer

Celosia Dracula is a moderate feeder. Apply fertilizer at rate 2 (about 100 to 175 ppm N/0.7 to 1.2 mS/cm). Celosia is susceptible to high salt levels.

Growth Regulators

Celosia Dracula is responsive to daminozide (B-Nine, Alar) spray at about 5,000 ppm (5.9 g/l, 85% formulation or 7.8 g/l 64% formulation). If necessary, repeat the treatment.

Pinching

Pinching is not needed.

Crop Scheduling

Sow to transplant (288 cell plug): 3 to 4 weeks

Transplant to flower:

Container Size: 6 in (15 cm)

Plants Per Pot: 1

Weeks From Transplant*: 6 to 9

Total Weeks*: 10 to 13

***NOTE:** Crop time will increase significantly when sowing seed at natural daylengths shorter than 11 hours or longer than 15 hours (see above Photoperiod section).

Common Problems

Insect: Thrips

Disease: No serious problems

NOTE: Growers should use the information presented here as a starting point. Crop times will vary depending on the climate, location, time of year, and greenhouse environmental conditions. Chemical and PGR recommendations are only guidelines. It is the responsibility of the applicator to read and follow all the current label directions for the specific chemical being used in accordance with all regulations.

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