GrowerFacts

PanAmerican Seed®

Celosia Sunday™ Series

(Celosia plumosa)

Cut Flowers Culture (revised 01/08/25)

First professional cut version of the popular plume-shaped celosia. Full plumes and long, strong stems enhance high-end retail mixed bouquets. Short, programmable production time and high yield; ideal for high-density programs. Excellent vase life.

General Information

Cultivation Type	Usage	Stem Length	Timing Group
Greenhouse, Tunnel, Field grown	Secondary	28-40 in. (71-102 cm)	N/A

Germination

Seed Form	Recommended Plug Size	Seeds/Cell	Plug Crop Weeks	Days from 50% to maximum germination	Initial Media pH/EC (1:2)	Cover Seed
PEL	288	1	2-3	3-4	5.8-6.5 pH 0.75 mmhos/cm	Light cover

Plug Production

	Stage 1	Stage 2	Stage 3	Stage 4
Moisture	Level 4	Level 4	Level 3-4	
Temperature	77°F (25°C)	72-77°F (22-25°C)	68-72°F (20-22°C)	68-72°F (20-22°C)
Light	Light	1,000-2,500 f.c. (10,800-26,900 Lux)	1,000-2,500 f.c. (10,800-26,900 Lux)	2,500-5,000 f.c. (26,900-53,800 Lux)
Fertiliser	Less than 100 ppm N (Less than 0.7 EC)	Less than 100 ppm N (Less than 0.7 EC)	100 to 175 ppm N (0.7 to 1.2 EC)	100 to 175 ppm N (0.7 to 1.2 EC)

Propagation Key Tips

Quantitative short-day plant. Flowers will initiate under short days. The optimum daylength for Sunday to reach the appropriate stem length lies between 12 to 13 hours. Celosia makes a taproot and is sensitive to root damage, which will result in early bud formation, deformed flowers and less uniformity. Therefore, plant before the plugs get rootbound. Maintain a constantly moist media, especially for the first 2 weeks after transplanting, to prevent premature flowering.

Growing on to Finish

Target Media pH/EC (1:2)	Fertiliser	Daylength
5.8-6.5 pH 0.75 mmhos/cm	Less than 100 ppm N (Less than 0.7 EC)	Facultative Short Day

Daylength Notation

The optimum daylength for Celosia Sunday to reach the maximum stem length is between 12 to 13 hours. Under greenhouse short-day conditions, provide daylength extension up to 13 hours to allow plants to elongate and to prevent early flowering. When daylength is over 13 hours, short-day treatments may be applied. Provide a dark period for a minimum of 12 hours for 5 to 6 weeks. Do not start short days until 1 week after planting.
Under field conditions, crop will initiate flowers faster under short days. Schedule your crop to receive long days after transplant to achieve stem length desired.

Crop Scheduling

Cultivation Type	Support	Temperature	Density	Crop Time
Field grown	Required	18-27°C/65-80°F (day) 16-21°C/60-70°F (night)	6-8 plants/ft² (65-86 plants/m²)	8-12 weeks
Greenhouse	Required	16-18°C/60-65°F (day) 16°C/60°F (night)	6-8 plants/ft² (65-86 plants/m²)	12-16 weeks

Fertiliser Notation

Celosia is susceptible to salt and high EC.

Chemical Sensitivity

PGRs are generally not recommended. Use if needed to control excessive stem length. Celosia is responsive to B-Nine/Alar (daminozide) 2,000 ppm (2.5 g/l 85% formulation or 3.0 g/l of 64% formulation) when excessive stem length is expected. Starting at 12 to 20-in./30 to 50-cm height, depending on weather, a weekly spray is advised. At final desired lengths, a spray with B-Nine/Alar (daminozide) 3,250 ppm (3.8 g/l 85% formulation or 5.0 g/l of 64% formulation) could be given to stop the plant growing further.

Common Problems

Insect: Aphids, Thrips, Spider Mites, Leaf Miners Disease: Powdery Mildew, Botrytis; it's recommended to treat preventively against Botrytis one week after transplanting.

Finishing Key Tips

Celosia makes a taproot and is sensitive to root damage, which will result in early bud formation, deformed flowers and less uniformity. Therefore, plant before the plugs get rootbound. Maintain a constantly moist media, especially for the first 2 weeks after transplanting, to prevent premature flowering. Before flower development, temperatures 65-75°F (day) 63-65°F (night) are recommended. Better flower quality is achieved if greenhouse temperatures are lowered as flowers develop.

Harvest

Harvest stems as plume is 90-100% developed.

Post Harvest

Strip 50-75% foliage. Use distilled water; no need for hydration or holding solutions. Avoid cold storage if possible.

Vase Life

7-14 days

Variety Pictures


Bright Orange


Bright Pink


Cherry


Dark Pink


Gold


Green


Orange


Purple


Red


Wine Red


Yellow


Mixture

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