

Dianthus Corona

(*Dianthus chinensis*)

Germination

Approximate pellet count: 7,090-11,340 pellets/oz.
(250-400 pellets/g)

Media

Use a well-drained, disease-free soilless media with a pH of 5.8 to 6.2 and an EC of 0.5 to 0.75 mmhos/cm (2:1 extraction).

Sowing

Plug Tray Size:

Can be produced in a 406 or larger size plug tray. Cover the seed with a medium layer of coarse grade vermiculite at sowing.

Stage 1 – Germination takes approximately 3 to 5 days

Germination temperature: 64 to 68°F (18 to 20°C)

Light: Light is not required, but can be beneficial.

Media moisture: Keep the media medium-wet (level 4) during germination.

Relative humidity: Maintain 95 to 97% relative humidity until cotyledons emerge.

Plug Production

Stage 2

Temperature: 65 to 70°F (18 to 21°C)

Light: Can be up to 2,500 f.c. (26,900 Lux). DLI 5 to 8 moles.m-2.d-1

Media moisture: Reduce the media moisture slightly (level 4 to 3) to allow the roots to penetrate into the media.

Fertilizer: Apply fertilizer at rate 1 (less than 100 ppm N/less than 0.7 mS/cm EC) with a nitrate-form fertilizer with low phosphorous. Maintain a media pH of 5.8 to 6.2 and EC at 0.5 to 0.7 mS/cm (1:2 extraction).

Stage 3

Temperature: 60 to 65°F (15 to 18°C)

Light: Can be up to 2,500 f.c. (26,900 Lux). DLI 8-10 moles.m-2.d-1

Media moisture: Moisture level can be reduced to medium to medium dry (level 3 to 2). Do not allow the seedlings to wilt.

Fertilizer: Increase the fertilizer rate to 2 (100 to 175 ppm N/ 0.7 to 1.2 mS/cm EC). Maintain a media pH of 5.8 to 6.2 and EC at 0.7 to 1.0 mS/cm (1:2 extraction).

Growth Regulators: If needed, one foliar spray application of paclobutrazol (Bonzi, Piccolo) at 4 to 6 ppm (1.0 to 1.5 ml/l, 0.4% formulation) during stage 3 is effective for Corona plug height control.

Stage 4

Temperature: 55 to 60°F (13 to 15°C)

Light: Can be up to 5,000 f.c. (54,000 Lux). DLI >10 moles.m-2.d-1

Media moisture: Maintain wet/dry cycle. Do not allow the seedlings to wilt.

Fertilizer: Keep the fertilizer rate to 2 (100 to 175 ppm N/ 0.7 to 1.2 mS/cm EC). Maintain a media pH of 5.8 to 6.2 and EC at 0.7 to 1.0 mS/cm (1:2 extraction).

Growing On to Finish

Container Size

Packs: 1 plug per cell

Quart: 1 plug per cell

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.

Temperature

Provide 60 to 72°F (15 to 22°C) day temperatures and 50 to 60°F (10 to 15°C) night temperatures for the first 2 weeks of greenhouse production to establish the plants. Finish at 60 to 70°F (15 to 21°C) days, and nights in the low 50s (11 to 12°C). Lower temperatures can be tolerated in the mature plant stage, but it will lengthen the crop time.

current label directions for the specific chemical being used in accordance with all regulations.

Light

Corona will benefit from being grown under high light levels. Grow them under light levels as high as possible while maintaining the optimal production temperatures. Growing under low light conditions (<5 moles.m-2.d-1) could significantly delay flowering.

Irrigation

Maintain optimal media moisture, i.e. not too wet or too dry.

Fertilizer

Starting a week after transplant, apply fertilizer at rate 3 (175 to 225 ppm N/1.2 to 1.5 mS/cm) once a week from a nitrate-form fertilizer with low phosphorus.

Photoperiod

Corona Dianthus is a facultative long day plant and can flower all year around, but it will take slightly longer to flower under short days than long days.

Growth Regulators

Corona Dianthus has a naturally compact plant habit and it does not require much plant growth regulator use during finish, but if needed can use foliar sprays of paclobutrazol (Bonzi, Piccolo) at 10 ppm (2.5 ml/l, 0.4% formulation) applied at 2 to 3 weeks after transplant, and typically one application will be sufficient.

Pinching

Pinching is not needed.

Crop Scheduling

Sow to transplant: 5 to 6 weeks

Transplant to finish:

Spring through Early Summer finishing: 6 to 8 weeks.

Late Summer to Winter: 8 to 10 weeks.

Common Problems

Insects: Thrips, mites.

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

