

Dynasty Series Double Dianthus

The World's First F1 Double-Flowered Dianthus!

- This unique new series produces blooms that look like mini carnations.
- Lightly scented **Dynasty** varieties are very well branched, upright and strong stemmed.
- “Knee-high” (16 to 20-in./40 to 50-cm) plants make an excellent backyard cutflower.
- Timing for the **Dynasty** series is similar to Corona Cherry Magic—up to 1 week later in certain climates.
- This excellent outdoor performer makes a great novelty pot plant as well – perfect for Valentine’s Day and Mother’s Day.

Dianthus barbatus interspecific

Approximate seed count: 34,285-51,400 S./oz.
(1,200-1,700 S./g)

Plug Production

Plug Tray Size

Use 406-cell plug trays.

Media

Use a well-drained, disease-free seedling medium with a pH of 5.8 to 6.2 and EC about 0.75 mmhos/cm (1:2 extraction).

Sowing

A medium covering of coarse vermiculite is strongly recommended to help maintain high humidity around the germinating seed. Bench germination takes 6 to 7 days, but chamber germination will yield better results. Moving the sowings out of the germ chamber “on time” (day 3 to 4) is critical for quality finished plugs. If left in the germ chamber longer, the seedlings will quickly show stretch.

Temperature

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

Cotyledon emergence: 65° to 70°F (18° to 21°C) days; 60°F (15°C) nights

True leaf expansion: 60°F (15°C) days; 55°F (13°C) nights

Light

Light is required for germination. A fluorescent light source in the germ chamber with 10 to 100 f.c. will work.

The best quality seedlings are produced with high light levels, up to 3,000 f.c.

Humidity

Maintain 95% relative humidity until cotyledons emerge.

Fertilizer

Beginning at Stage 3, fertilize two times a week with 50 ppm N from 14-0-14, alternating with 20-10-20 type fertilizer. Increase the nitrogen concentration to 100 ppm after one week, and continue this program until the plugs are finished. Maintain the EC at 0.5 to 0.75 mmhos/cm and increase to 1.0 mmhos/cm at Stage 3 and 4. Maintain the pH at 5.8 to 6.2 throughout. If plugs are grown cooler for toning, they may show leaf purpling (caused by phosphorus deficiency) during Stage 4. To correct this, use any plug fertilizer supplying a good amount of phosphorous once or twice. *Note:* Excessive phosphorous fertilization will cause seedling stretch.

Growth Regulators

Treat 3-week-old plugs with a foliar spray of Bonzi at 6 ppm for toning. One application in the plug stage is sufficient.

Note: Transplant the plugs “on time.” Seedlings will get root-bound if held in the plug stage too long.

Stage 2 timing: 7 to 10 days

Stage 3 timing: 14 to 18 days

Stage 4 timing: 7 days

Growing On to Finish

Container Size

Double dianthus is best suited to 3-in. (8-cm) or A-18 deep pots.

Media

Use a well-drained, disease-free soilless medium with a medium initial nutrient charge and a pH of 5.8 to 6.5.

Temperature

Provide 65 to 70°F (18° to 21°C) day temperatures and 60°F (15°C) night temperatures for the first 2 weeks of greenhouse production to establish the plants. Finish at 60° to 72°F (15° to 22°C) days, and nights in the low 50s (11 to 12°C). Lower temperatures can be tolerated in the mature plant stage.

Light

No supplemental lighting is required.

Humidity

Avoid high humidity; it may induce powdery mildew.

Water

Maintain uniform moisture throughout the crop.

Fertilizer

When grown in the greenhouse, begin fertilizing the crop with 150 ppm N once a week starting a week after transplant. The plants may require additional fertilization when grown outside. Maintain an EC of 1.5 mmhos/cm and a pH of 5.8 to 6.2 after transplant until finish. If young plants show tip necrosis, it is most likely caused by a calcium deficiency. If necessary, treat with a foliar spray of calcium or a calcium nitrate fertilizer supplying 150 ppm N.

Growth Regulators

Foliar sprays of 20 ppm Bonzi can be applied 2 to 4 times to control height. The frequency of application is determined by the rate of plant growth, time of year and location. Apply 2 weeks apart if 2 applications are used. If using the 4-application Bonzi program, spray weekly beginning a week after transplant.

For 6-in. (15-cm) or 1-gallon (8-in./20-cm standard pot) containers (1 plant per pot), apply tank mix foliar sprays of B-Nine at 5,000 ppm and Cycocel at 1,000 ppm, both at the same frequency and timing schedule as recommended for Bonzi.

Crop Scheduling

Sow to transplant: 4 to 5 weeks in a 406-cell plug tray.

Transplant to finish in A-18 deep flat: 6 to 8 weeks.

Total crop time to flower: 10 to 12 weeks in late Spring/Summer; 11 to 13 weeks for a late Summer/Winter crop.

Common Problems

Insects: Watch for aphid infestations during early growth stages.

Diseases:

Pythium root rot: Soft, brown, mushy roots.

Rhizoctonia: Tan, brown or black lesions on the stem at the soil line in conjunction with good root development.

Note: Chemical recommendations are only guidelines. Follow national and state regulations.

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