

Amazon Series Dianthus

Exceptional Additions to Summer Bedding & Commercial Cut Flower Programs

- **Amazon** dianthus have strong stems and very dark green, glossy foliage that sets off eye-catching blooms.
- Versatile series is an exceptional landscape and bedding plant, and makes an excellent commercial and home garden cut flower.
- No vernalization is required for flowering.
- **Amazon** dianthus are available as seed or plugs. Call your local distributor or PanAmerican Seed at 800 231-4868 today.

Amazon for Bedding Plant Programs

- Large number of stems and good basal branching make showy garden displays all season long.
- “Cut-and-come-again” flowering and no need for staking make these easy-care plants a perfect choice for backyard cutting gardens.
- Vigorous, frost and heat-tolerant plants are also well-suited to landscapes.
- The exceptional performance of **Amazon** dianthus in the heat along with the vibrant colors make this a great addition to late Spring, Summer and early Autumn flowering programs.
- In the garden, **Amazon** grows to about 18 to 24 in. (45 to 60 cm) tall.

Amazon for Commercial Cut Flower Programs

- Produce high yields of salable stems for commercial greenhouse and field cut flower producers.
- Plants reach 18 to 36 in. (45 to 90 cm), with tallest growth resulting from early Autumn-transplanted, greenhouse-grown plants.
- Vivid floral colors make these dianthus excellent choices as bouquet filler items.

D. barbatus interspecific

Approximate seed count: 34,000 to 71,000 S./oz. (1,200 to 2,500 S./g)

Plug Production for Bedding Plant & Cut Flower Programs

Plug Tray Size

Amazon dianthus is best produced in 406-cell plug trays for bedding plant programs. For cut flower programs, a 200-cell tray can be used.

Sowing

Use a well-drained, disease-free medium with a pH of 5.8 to 6.2, as well as good aeration and water-holding capacity. Cover seed with a medium layer of coarse vermiculite at sowing. Seed takes approximately 3 to 4 days to germinate.

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.

Humidity

Maintain 95 to 97% relative humidity until cotyledons emerge.

Fertilization

Beginning at Stage 3, fertilize 2 times a week with 50 ppm N. Increase the nitrogen concentration to 100 ppm after 1 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 Stages 3 and 4. pH can be maintained at 5.8 to 6.2 throughout.

Growing On to Finish for Bedding Plant Programs

Container Size

Best grown in gallon or 8-in. (20-cm) containers with 3 plugs per pot.

Temperature

60 to 72°F (15 to 22°C)

Fertilization

After plants are established, apply a calcium-based fertilizer or 15-5-15 at 150 ppm, 1 to 2 times per week. Dianthus require adequate calcium in their fertilization program.

Growth Regulators

Since **Amazon** dianthus are very responsive to growth regulators, growers should experiment with concentrations and application timing. For example, an application of Bonzi spray at 20 ppm can be applied 2 weeks after transplanting into a 4-in. (10-cm) or larger pot. For 6-in. (15-cm) pots or gallons, another application of Bonzi spray at 20 ppm may be required 2 weeks later.

Crop Scheduling for Bedding Plant Programs

Weeks from sow to transplant (406-cell tray): 4 weeks

Late Spring through Autumn finishing: 12 to 13 weeks

Winter finishing: 14 to 18 weeks

Amazon can be produced year-round in high-light areas, but under low-light conditions (northern Europe), **Amazon** flowering will be significantly delayed during the Winter. NOTE: *Amazon* is best produced as the daylength increases for finishing as an early Summer crop.

Tip

A small percentage (3 to 5%) of early off-types can be observed with **Amazon** dianthus at 4 to 5 weeks from sowing. These plants should be removed at transplant.

Growing On to Finish for Cut Flower Programs

Transplanting

Transplant directly into ground beds approximately 5 weeks after sowing, spacing 3 to 4 plants per net sq. ft. (approximately 30 to 40 plants per net sq. m). If main stem is pinched on **Amazon** dianthus, then space at 1.5 plants per net sq. ft. (approximately 15 plants per net sq. m).

Temperature

65 to 80°F (18 to 27°C). **Amazon** dianthus can tolerate temperatures as low as 45°F (7°C), but the crop will be delayed. Plants are frost-tolerant, although frost will damage flowers.

Light

Best results are achieved when plants are grown in full sun or in a high-light greenhouse. The combination of high light with high heat will result in shorter stems.

Fertilization

After plugs are established, apply 200 ppm calcium nitrate per week.

Netting/Pinching

A single layer of support netting is recommended.

Crop Schedule for Cut Flower Programs

Amazon dianthus can be transplanted year-round in coastal California or similar climates, where mid-August to February 1 transplants will develop the best stem length. Greenhouse-grown plants generally produce taller stems than plants that are field-grown. Harvest stems with at least 3 open flowers.

Weeks from sow to transplant (200-cell tray):
5 weeks

Weeks from transplant to first flower:
Greenhouse:

Late Spring/Summer: 11 to 14
Late Summer/Winter: 12 to 18

Field:

Late Spring/Summer: 11 to 14
Late Summer/Winter: 18 to 23

Stem Length (Field):

Late Spring/Summer: 20 to 25 in./50 to 65 cm
Late Summer/Winter: 25 to 36 in./65 to 92 cm

In the field, the secondary stems of late Spring/ Summer transplants grow 25 to 30 in. (65 to 75 cm) long. For the Summer/Winter transplants, second-crop stems can reach 30 to 36 in. (75 to 90 cm). Plants can be harvested continuously for approximately 4 to 6 weeks. NOTE: All information is based on California coastal conditions.

Cultural Tip

In outdoor production, a preventative rust program is recommended.

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