

# Bouquet Series Dianthus

*Exceptional Additions to Bedding & Commercial Cut Flower Programs*

- Featuring open, lacy flowers with a slight fragrance, these tall, sturdy plants have a “wispy,” informal look and well-branched, strong stems that do not need staking.
- Versatile series is an exceptional landscape and bedding plant, and makes an excellent commercial and home garden cut flower.
- 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.
- **Bouquet** dianthus are available as seed or plugs. Call your local distributor or PanAmerican Seed at 800 231-4868 today.

## Bouquet Dianthus for Bedding Plant Programs

- Perform as a first year-flowering perennial and can overwinter in many areas; no vernalization is needed. **Bouquet** dianthus are hardy to USDA Zone 4 (30°F/-34°C minimum temperature).
- Versatile, award-winning performance: Mississippi Medallion Award for performance in southern climates and Minnesota Perennial Select Award for cold tolerance.
- Vigorous, frost and heat-tolerant plants are also well-suited to landscapes.
- Low-energy input crop; grow cooler than other Spring bedding plants and save on heating bills.
- Garden height is about 18 to 24 in. (45 to 60 cm).

## Bouquet Dianthus for Cut Flower Programs

- Produce high yields of salable stems for commercial greenhouse and field cut flower producers.
- Flower earlier than other vegetatively propagated dianthus, with straight, strong stems.
- Plants reach 18 to 24 in. (45 to 60 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:** 8,575 S./oz. (300 S./g)

## Plug Production for Bedding Plant & Cut Flower Programs

### Plug Tray Size

**Bouquet** dianthus are best produced in 406-cell or larger 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 medium layer of coarse vermiculite at sowing. Seed takes about 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

Suitable for production in 5-in. (13-cm) pots, or gallon containers with 3 plugs per gallon.

### Temperature

Days: 60 to 72°F (15 to 22°C)

Nights: 50 to 60°F (11 to 15 °C)

### Fertilization

After plants are established, apply a calcium-based fertilizer or 15-5-15 at 100 ppm, 1 to 2 times per week. Dianthus require adequate calcium in their fertilization program.

### Growth Regulators

Since **Bouquet** 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 (sow to flower)

**Late Spring/Summer:** 12 to 13 weeks

**Late Summer/Winter:** 14 to 18 weeks

### Cultural Tip

Use a powdery mildew preventative program.

## Growing On to Finish for Commercial Cut Flower Programs

### Transplanting

Transplant directly into ground beds approximately 5 weeks after sowing, spacing 3 to 4 plants per net sq. ft. (approx. 30 to 40 plants per net sq. m).

### Temperature

60 to 72°F (15 to 22°C). 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.

### Cut Flower Crop Schedule

**Bouquet** 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:** 8 to 9 weeks

**Late Summer/Winter:** 9 to 13 weeks

#### Field:

**Late Spring/Summer:** 8 to 9 weeks

**Late Summer/Winter:** 15 to 18 weeks

### Stem Length (Field):

**Late Spring/Summer:** 18 to 20 in. (45 to 50 cm)

**Late Summer/Winter:** 25 to 30 in. (65 to 75 cm)

In the field, the second-crop stems of late Spring/Summer transplants grow 20 to 25 in. (50 to 65 cm) long. For the Summer/Winter transplants, second-crop stems can reach 25 to 35 in. (65 to 90 cm). Plants can be harvested continuously for approximately 4 to 6 weeks. If cut back, a second flush of flowers will be ready to harvest in 8 to 10 weeks. **Note:** All information is based on California coastal conditions.

### Cultural Tip

In outdoor production, a preventative program for powdery mildew may be required.

# PanAmerican Seed™

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