

Sweet Series Dianthus

Exceptional Addition to Bedding & Commercial Cut Flower Programs

- The versatile, well-branched, vigorous **Sweet** series provides the strongest, straightest stems of any *Dianthus barbatus* on the market.
- Continuous color is provided with stem after stem of fragrant, bright flowers. Each flower head is packed with vibrant florets, increasing the shelf life at retail and vase and pot plant longevity for consumers.
- Now available as pelleted seed for easier sowing. Order seed and plugs today – call your local distributor or PanAmerican Seed at 800 231-4868.

Sweet Dianthus 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.
- A 4 to 6-in. (10 to 15-cm) pot makes an excellent gift plant. The strong scents and bright colors provide impulse purchases for consumers.
- Vigorous plants are also well-suited to landscapes.
- Hardy to USDA Zone 6 (-23°C).
- 18 to 24 in. (45 to 60 cm) tall in the garden.

Sweet Dianthus for Commercial Cut Flower Programs

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

D. barbatus

Approximate seed count: 26,000 to 34,000 S./oz. (900 to 1,200 S./g)

Plug Production for Bedding Plant and Cut Flower Programs

Plug Tray Size

Best produced in a 406-cell type plug tray. The average plug production time is 4 weeks.

Media

Use a well-drained, disease-free plug media with a pH of 5.8 to 6.2 and an EC of 0.5 to 0.75 mmhos/cm.

Sowing

Cover the seed with a medium layer of coarse grade vermiculite at sowing. Moving the sowings out of the germ chamber “on time” is critical. If left in the germ chamber longer, the seedlings will stretch very quickly.

Temperature

Germination: 64 to 68°F (18 to 20°C)

Cotyledon emergence: 65 to 70°F (18 to 20°C) days; 60°F (15°C) nights.

True leaf stage to shipping/transplant: 60°F (15°C) days; 55°F (13°C) nights.

Humidity

Maintain 95 to 97% relative humidity during germination.

Light

No supplemental lighting is required.

Fertilization

Beginning at Stage 3, start fertilizing with 50 ppm N twice a week. As the true leaves develop, increase the fertilizer rate to 100 ppm. Maintain the plug media EC at 0.75 to 1.0 mmhos/cm and pH at 5.8 to 6.2.

Plant Growth Regulators

PGRs are not needed if the plugs are produced for cut flower production. If needed for bedding plant production programs, a foliar spray of Bonzi at 6 ppm applied during early Stage 3 will tone the plugs.

Growing On to Finish for Bedding Plant Programs

Container Size

Sweet dianthus is suitable for production in gallon containers with 3 plugs per gallon.

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 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.

Fertilization

A week after transplant, begin fertilizing the crop with 150 ppm N once or twice a week. Maintain an EC of 1.5 to 2.0 mmhos/cm and a pH of 5.8 to 6.2 after transplant until finish.

Note: Dianthus require adequate calcium in their fertilization program.

Plant Growth Regulators

Since **Sweet** dianthus is 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 to 3 times after transplanting into gallon containers. First application can be done 2 weeks after transplant, and the subsequent applications can be applied 2 weeks apart.

Note: Growth regulators are not recommended for cut flower production.

Crop Scheduling

406-cell: Approximately 4 weeks

Transplant to flower – Spring: Approximately 11 weeks

Transplant to flower – Late Autumn/Winter: 12 to 16 weeks

Cultural Tip

In outdoor production, a preventative rust program is recommended.

Growing On to Finish for Commercial Cut Flower Programs

Transplanting

Transplant directly into ground beds approximately 4 to 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). **Sweet** dianthus can tolerate night temperatures as low as 45°F (7°C).

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.

Cutflower Crop Schedule

Sweet 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. Stem length for the **Sweet** series from transplants April to July may not be of sufficient length for commercial production depending on the environment. 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

406-cell tray: Approximately 4 weeks

Weeks from transplant to first flower:

Spring/Late Summer: 11 weeks

Autumn (Fall)/Winter: 12 to 16 weeks

Stem Length (Field): 18 to 24 in. (45 to 60 cm)

Plants can be harvested continuously for approximately 2 to 3 weeks. If cut back, a second flush of flowers will be ready to harvest in 8 to 10 weeks.

Note: A second crop is only advisable from an Autumn harvest so the second flush develops under the cooler conditions of late Autumn and Winter and builds stronger plants.

Cultural Tip

Incorporating a preventative program for Fusarium is strongly recommended. In outdoor production, a preventative rust program is also recommended.

PanAmerican Seed™

PanAmSeed.com

PanAmerican Seed Co.
622 Town Road
West Chicago, Illinois USA 60185-2698
630 231-1400
Fax: 630 231-3609

PanAmerican Seed Europe BV
Lavendelweg 10
NL-1435 EW Rijsenhout, Holland
+31 (0)297-383038
Fax: +31 (0)297-383036

™ denotes a trademark of and ® denotes a registered trademark of Ball Horticultural Company in the U.S. It may also be registered in other countries.

©2005 Ball Horticultural Company Printed in USA PAS06084