

**Cultural Information for:** Dianthus Diamond      Annual  
**Common Name:** Dianthus  
**Botanical Name:** Dianthus hybrida  
**Seed Count:** 21,300 /ounce      750 /gram  
**Optimum Germination** 70°F / 21°C  
**Temperature:**  
**Optimum Growing Temperature:** 62-68°F / 17-20°C

## Plug Culture – 5 weeks (288 / 12 x 24 tray)

**Stage One** (day 1-7) Single sow seed of Dianthus Diamond into a well-drained media with a pH between 5.5 and 6.5. Lightly cover the seed with vermiculite and provide sufficient moisture and a soil temperature of 70°F/21°C.

**Stage Two** (day 8-15) When seedlings emerge, place plug flats in a cool, well-ventilated greenhouse with bright light. Apply a light feed of 75 - 100 ppm from a well-balanced fertilizer to ensure a healthy start. Optimum EC is 0.8 mmhos (2:1 dilution).

**Stage Three** (day 16 - 35) Dianthus tolerates a wide temperature range, but does best at cooler temperatures. For optimum growth, maintain day and night temperatures between 60-72°F/16-22°C. Fertilize at least once a week with 150 - 200 ppm to maintain healthy plants. The use of calcium-based fertilizers will produce strong seedlings and reduce soft growth. Cycocel® (chlormequat) can be used to control height at a rate of 750 to 1,500 ppm. The use of Cycocel may cause some phytotoxicity, (yellowing of the leaf margins) and will be more pronounced on under-nourished seedlings. Some growers prefer to use Bonzi® (paclobutrazol) at 2 - 5 ppm, which is effective and less toxic. If using paclobutrazol, it is best to wait until the plant canopy covers the plug tray to avoid introducing paclobutrazol into the media.

**Stage Four** (day 35) Seedlings are now ready for transplanting to cell packs or pots. It is best not to delay transplanting, but if necessary, maintain plants at 55-60°F/ 13-15°C and reduce fertilizer to avoid overgrowth.

## Pack and Pot Culture 5 - 7 weeks

**Transplanting:** Select a well-drained media with a pH in the 5.5 to 6.5 range and a low EC level of 0.5 to 0.7 mmhos, (2:1 dilution). Dianthus is a soft tissue plant and one should avoid planting the seedlings too deep to prevent stem rot.

**Temperature:** Dianthus Diamond grows best at 62-68°F/ 17-20°C.

**Fertilizer:** Dianthus is not a heavy feeder, but one should fertilize on a regular basis to produce healthy plants. Keep the EC level between 1.0 and 1.2 mmhos (2:1 dilution). Avoid using fertilizers that contain high amounts of ammonium nitrate to prevent plant stretch and soft growth; especially under warm temperature conditions.

**Growth Regulators:** Using culture to control height is recommended. Cool temperatures and a calcium-nitrate-based feed program work well to avoid plant stretch and soft growth. Cycocel or Bonzi can also be used to control plant height, (see notes under Stage 3).

**Timing:** Dianthus Diamond is bred to flower early and will generally bloom in 10 - 12 weeks after sowing. Dianthus Diamond is recommended for both spring and autumn sales.

**Marketing:** Dianthus Diamond will flower early and is both cold and heat tolerant. Diamond is available in a wide range of separate colors and a mix. Blush Pink is a unique color that opens white and gradually darkens to a bright rose pink.

*“All information given is intended for general guidance only and may have to be adjusted to meet individual needs. Cultural details are based on North American conditions and Sakata cannot be held responsible for any crop damage related to the information given herein. Application of recommended growth regulators and chemicals are subject to local and state regulations. Always follow manufacturer's label instructions. Testing a few plants prior to treating the entire crop is best.”*