

## Dash Dianthus

*Dianthus barbatus*

Approximate pellet count: 6,520 – 10,915 pellets/oz. (230 – 385 pellets/g)

### Plug Production

#### Media

Use a well-drained, disease-free soilless media with a pH of 5.8 to 6.2 and an EC of 0.5 to 0.75 mmhos/cm (2:1 extraction).

#### Sowing

##### Plug Tray Size:

Can be produced in a 288 or similar size plug tray. Cover the seed with a medium layer of coarse grade vermiculite at sowing.

**Stage 1** – Germination takes approximately 3-5 days

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

**Light:** Light is not required, but can be beneficial

**Media moisture:** Keep the media medium wet (level 4) during germination.

**Relative humidity:** Maintain 95 to 97% relative humidity until cotyledons emerge.

#### Stage 2

**Temperature:** 65 to 70°F (18 to 21°C)

**Light:** Can be up to 2,500 f.c. (26,900 Lux).

**Media moisture:** Reduce the media moisture slightly (level 3) to allow the roots to penetrate into the media.

**Fertilizer:** Apply fertilizer at rate 1 (less than 100 ppm N/less than 0.7 mS/cm EC) with a nitrate-form fertilizer with low phosphorous. Maintain a media pH of 5.8 to 6.2 and EC at 0.5 to 0.7 mS/cm (1:2 extraction).

#### Stage 3

**Temperature:** 60 to 65°F (15 to 18°C)

**Light:** Can be up to 2,500 f.c. (26,900 Lux)

**Media moisture:** Moisture level can be reduced to medium to medium dry (level 3 to 2). Do not allow the seedlings to wilt.

**Fertilizer:** Increase the fertilizer rate to 2 (100 to 175 ppm N/ 0.7 to 1.2 mS/cm EC). Maintain a media pH of 5.8 to 6.2 and EC at 0.7 to 1.0 mS/cm (1:2 extraction).

#### Stage 4

**Temperature:** 55 to 60°F (13 to 15°C)

**Light:** Can be up to 5,000 f.c. (54,000 Lux)

**Media moisture:** Maintain wet/dry cycle. Do not allow the seedlings to wilt.

**Fertilizer:** Keep the fertilizer rate to 2 (100 to 175 ppm N/ 0.7 to 1.2 mS/cm EC). Maintain a media pH of 5.8 to 6.2 and EC at 0.7 to 1.0 mS/cm (1:2 extraction).

#### Growth Regulators

Generally not needed, but if the plugs need to be toned, then a foliar spray of Bonzi (paclobutrazol) at 6 ppm (1.5 ml/l, 0.4% formulation) applied during early stage 3 will be helpful.

### Growing On to Finish

#### Media

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

#### Temperature

Provide 65 to 75°F (18 to 24°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.

#### Light

As high as possible while maintaining the optimal production temperatures

#### Irrigation

Maintain optimal media moisture, i.e. not too wet or too dry.

#### Fertilizer

Starting a week after transplant, apply fertilizer at rate 3 (175 to 225 ppm N/1.2 to 1.5 mS/cm) once a week from nitrate-form fertilizer with low phosphorus.

### **Growth Regulators**

Dash Dianthus has a naturally compact plant habit and good basal branching compared to other *barbatus* type dianthus, making it more suitable for container production. When producing Dash in containers, foliar spray of Bonzi (paclobutrazol) at 20 ppm (5.0 ml/l, 0.4% formulation) applied once at 2-3 weeks after transplant will help in toning the crop, if needed.

### **Pinching**

Pinching is not needed.

### **Container Size**

**Quart:** 1 plug per cell

**1-gallon (18-cm) pot:** 1 to 3 plugs per pot

### **Crop Scheduling**

**Sow to transplant (288/264-cell plug tray):**

4 to 5 weeks

**Transplant to finish:**

Spring through Early Summer: 9 to 10 weeks

Winter: 11 to 12 weeks

### **Common Problems**

**Insects:** Thrips, Aphid, Mites.

**Diseases:** Powdery Mildew

**Cultural Tip:** Avoid using fungicides such as Heritage containing active ingredient Azoxystrobin as they can cause phytotoxic symptoms on Dash Dianthus.

**Note:** Growers should use the information presented here as a starting point. Crop times will vary depending on the climate, location, time of year, and greenhouse environmental conditions. Chemical and PGR recommendations are only guidelines. It is the responsibility of the applicator to read and follow all the current label directions for the specific chemical being used in accordance with all regulations.

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