

## Salvia New Dimension

(*Salvia nemorosa*)

### Germination

Approximate seed count

Blue: (filmcoated): 1000 – 1100 Sds/gr.

Rose: (filmcoated): 600 – 750 Sds/gr.

For seeds/ounce : 1 gram = 0,035 ounce.

#### Key flowering facts:

- First year-flowering perennial.
- Photoperiod response. Long day crop with critical day length about 14 hours.
- Vernalization: Not required.
- Flower timing:
  - o Sown in mid-March as Spring production will flower naturally in middle to late June.
  - o Sown from mid to late July for overwintering production; will flower late May to early June of the following year.

#### Media

Use a well-drained, disease-free, soilless media with a pH of 5.5 to 6.2 and an EC of 0.5 mmhos/cm).

#### Sowing

Sow 4 seeds per cell in 288 or larger plug tray. In Europe 180-cell trays can be used with 4 to 6 seeds per cell for overwintering production or for early sowing spring production. Cover seed lightly with vermiculite. Spray with fungicide to prevent damping off and against Alternaria/Phoma.

Germination takes 3-4 days.

**Soil temperature:** 68 to 72°F (20 to 22°C)

**Light:** Light is optional.

**Moisture:** Keep soil medium moist (level 3) in Stage 1.

**Humidity:** Maintain 95 to 97% relative humidity (RH) until radicles emerge.

### Plug Production

#### Media

Use a well-drained, disease-free, soilless media with a pH of 5.5 to 6.2 and an EC of 0.5 mmhos/cm).

#### Sowing

Sow 4 seeds per cell in 288 or larger plug tray. In Europe 180-cell trays can be used with 4 to 6 seeds per cell for overwintering production or for early sowing spring production. Cover seed lightly with vermiculite. Spray with fungicide to prevent damping off and against Alternaria/Phoma.

**Stage 1 – Germination** takes 3-4 days.

**Soil temperature:** 68 to 72°F (20 to 22°C)

**Light:** Light is optional.

**Moisture:** Keep soil medium moist (level 3) in Stage 1.

**Humidity:** Maintain 95 to 97% relative humidity (RH) until radicles emerge.

#### Stage 2

**Soil temperature:** 65 to 68°F (18 to 20°C)

**Light:** Up to 2,500 f.c. (26,900 Lux)

**Moisture:** Keep soil moisture at the same level (level 3), to allow the roots to penetrate into the media. Don't let the media dry out.

**Fertilizer:** None. Salvia is sensitive to high salt level during early plug stage. Do not fertilize until true leaves develop (maximum 0.5 EC).

#### Stage 3

**Soil temperature:** 65 to 68°F (18 to 20°C)

**Light:** Up to 2,500 f.c. (26,900 Lux)

**Moisture:** Allow media to dry further until the surface becomes light brown (level 2) before watering. Keep the moisture level to wet-dry cycle (moisture level 3 to 2).

**Fertilizer:** Apply fertilizer to rate 2 (100 to 175 ppm Nitrate/0.7-1.0 mmhos/cm EC) from nitrate-form fertilizers.

**Growth Regulators:** Not necessary.

#### **Stage 4**

**Soil temperature:** 65 to 68°F (18 to 20°C)

**Light:** Up to 5,000 f.c. (53,800 Lux) if temperature can be controlled.

**Moisture:** Same as Stage 3.

**Fertilizer:** Same as Stage 3.

### **Growing On to Finish**

#### **Container Size**

4 to 5-in. (10 to 13 cm) or square/quart pots: 1 plug per pot

1 to 1½ gallon (17 to 23 cm): 3 to 5 plugs per pot

#### **Media**

Use a well-drained, disease-free, soilless media with a pH of 5.5 to 6.2 and an EC of 0.75 mmhos/cm).

#### **Nitrate schedule from start to finish:**

Start production stage N = 0.8 – 1.0

Final production stage N = 1.2 – 1.3

#### **Temperature**

**Nights:** 50 to 59°F (10 to 15°C)

**Days:** 60 to 72°F (16 to 22°C)

During overwinter period, plants will do best under minimum 36-38°F/2-3°C protected circumstances.

#### **Light**

Natural daylight during season, preferably as high as possible; no additional light is required.

#### **Photoperiod**

It is a long-day plant and flowers most rapidly and uniformly at 14 or longer day length with critical day length about 14 hours.

#### **Irrigation**

Keep media medium dry to medium moist (level 2 - 3). Avoid both excessive watering and drought but allow pots to dry in between waterings.

For overwinter production, keep plants on the dry side during winter period as overwatering could result in plant loss from root rot.

#### **Fertilizer**

Apply fertilizer at rate 1-2 (100 to 125 ppm N/1.2 to 1.5 mmhos/cm EC) or 150 ppm as needed. Maintain the pH at 5.5 to 6.2.

The ratio of N:K should be 1:1 at start production stage and increase to 1:2 at later stage.

#### **Growth Regulators**

In general, no PGR is needed, especially when grown under cool conditions, but if necessary New Dimension is responsive to B-Nine/Alar (daminozide) 2,500 ppm (3.0 gr/l 85% formulation or 4.0 gr/l 64% formulation) applied about 10 days to 2 weeks after transplant. If necessary, repeat the application 2 weeks later depending on growth, temperature and light level.

#### **Pinching**

##### **Annual:**

Pinching is not needed.

##### **Overwintered:**

Pinch only those plants which flower before winter.

**IMPORTANT:** Don't pinch too low (minimum 8 to 10 cm from heart of the plant/soil level) or too late if pinch is done before winter to prevent plants from disease or infection.

#### **Spacing:**

Space plants when foliage is touching.

#### **Crop Scheduling**

**Sow to transplant (288 cell plug):** 5 to 6 weeks

**Sow to transplant (180 cell plug):** 6 to 7 weeks

##### **Annual:**

##### **Transplant to flower from 288 cell:**

- Blue: 9 to 11 weeks
- Rose: 8 to 10 weeks

**Total crop time:** 13 to 15 weeks

Under proper day length and temperature range

##### **Overwintering:**

**Transplant to flower:** 32 to 38 weeks



**Total crop time:** 38 to 44 weeks

**Spring Production:** Sown in mid-March for natural flowering in middle to late June.

**Overwinter Production:** Sown in middle to late of July for natural flowering late May to early June of the following year.

Do not sow too early for preventing flowering before winter.

#### **Common Problems**

**Insect:** Spider Mites, Aphids, Thrips, White Flies

**Disease:** Rhizoctonia, Crown and Root Rot (under wet conditions), Leafspot, Pythium, Phytophthora, Botrytis, Powdery Mildew, Phoma

**Physiological:** To enhance foliage color and quality add 1 g/l Bittersalt (MgSO<sub>4</sub>) in a weekly basis starting from 2 weeks after transplant.

#### **Garden and Landscape Information**

- New Dimension is a first year-flowering perennial to USDA Hardiness Zone 4 to 7.
- Space plants at 10 to 12 in. (25 to 30 cm) apart in well-drained soil.

**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.

