

## Helenium Dakota Gold

(*Helenium amarum*)

### Germination

Light is not required for germination. Cover the tray with vermiculite. Recommended tray size is 288 to 128 cell (with a multi-seeded pellet).

### Plug Production

#### Media

Use a well-drained, disease-free, soilless medium with a pH of 5.5 to 6.3 and a medium initial nutrient charge (EC 0.75 mmhos/cm with a 1:2 extraction).

#### Sowing

Recommended tray size is 288 to 128 cell (with a multi-seeded pellet). Cover the tray with vermiculite.

#### Temperature

Germination: 65 to 75°F (18 to 22°C)  
Seed germinates in 3 to 5 days at the recommended temperatures.  
Stage 2 to 3: 68 to 72°F (20 to 22°C)

#### Light

Light is not required for germination.

#### Humidity

Maintain 95% relative humidity until cotyledons emerge.

#### Soil Moisture

Keep soil moisture high until radicle emergence, then reduce moisture levels after the radicle penetrates the medium. Do not allow the seedlings to wilt.

#### Fertilizing

**At radicle emergence:** Apply 50 to 75 ppm N from 15-0-15.

**As cotyledons expand:** Increase to 100 to 150 ppm N.

**If growth is slow:** Apply 20-10-20 with every third fertilization. Maintain medium EC between 1.0 and 1.5 mmhos/cm (1:2 extraction).

### Growth Regulators

No growth regulators are required.

### Growing On to Finish

#### Media

Use a well-drained, disease-free, soilless medium with a pH of 5.5 to 6.5 and a medium initial nutrient charge.

#### Temperature

**Nights:** 64 to 66°F (18 to 19°C)

**Days:** 65 to 70°F (18 to 21°C)

This plant likes heat to grow. Higher temperatures result in a faster crop time.

#### Light

As high as possible.

#### Photoperiod

Plants will flower regardless of daylength, but the growing habit is quite related to daylength. Plants grow slowly when grown under daylengths shorter than 12 hours and become very flat or even rosette when grown under daylengths shorter than 10 hours. Growing plants under long days (12 hours or more) is recommended.

#### Irrigation

Avoid both excess watering and drought.

#### Fertilizer

Feed plants weekly with 200 ppm N in a complete fertilizer.

### Growth Regulators

Generally not required. If necessary, B-Nine 5,000 ppm spray can be used about 2 weeks after transplant for height control. This treatment can also prolong shelf life.

#### Pinching

Pinching is not required.

## **Common Problems**

**Insects:** Aphids

**Diseases:** Powdery mildew

