

## Alyssum Clear Crystal®

(*Lobularia maritima*)

### Germination

Use a well-drained, disease-free media with a pH range of 5.5 to 6.0, and EC less than 0.75 mmhos/cm (2:1 extraction). Light is beneficial during germination. Germination takes approximately 3 to 4 days.

### Plug Production

#### Media

Use a well-drained, disease-free media with a pH range of 5.5 to 6.0, and EC less than 0.75 mmhos/cm (2:1 extraction).

#### Sowing

Sow multi-seed pellets or multiple sow film-coated seed with 5 to 6 seeds per cell for best performance. The multi-seed pellet form requires a thick layer of vermiculite and sufficient water to dissolve the pellet at sowing; this is especially true in low humidity environments.

**Plug Tray Size:** Can be best produced in 200, 288 or similar cell-size plug trays.

**Stage 1** - Germination takes approximately 3 to 4 days.

**Germination temperature:** 70 to 72°F (21 to 22°C)

**Light:** Light is beneficial during germination.

**Relative humidity:** Maintain 95 to 97% relative humidity until cotyledons emerge. Avoid excess humidity later in the plug production, as this will create conditions favorable for disease incidence.

#### Stage 2

**Temperature:** 65 to 75°F (18 to 24°C) days; 60 to 65°F (16 to 18°C) nights

**Light:** Can be up to 2,500 f.c. (26,900 Lux) during Stages 2 and 3.

**Media Moisture:** Keep the media medium (level 3) to medium wet (level 4).

**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.

#### Stage 3

**Temperature:** 65 to 75°F (18 to 24°C) days; 55 to 60°F (13 to 15°C) nights

**Media Moisture:** Keep the media medium wet (level 3) during Stages 3 and 4.

**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:** 60 to 70°F (15 to 21°C) days; 55 to 60°F (13 to 15°C) nights

**Light:** Light levels can be up to 5,000 f.c. (53,800 Lux) if temperatures can be maintained.

**Fertilizer:** Same as Stage 3.

#### Plant Growth Regulators

PGRs are generally not required.

### Growing On to Finish

#### Container Size

Can be grown in 804, 1801 or 306 packs or 4-in. (10-cm) containers. The crop will finish more compact in an 804 compared to 1801 and 306 packs.

#### Media

Use a well-drained, disease-free media with a pH of 5.8 to 6.2 and a medium initial nutrient charge.

#### Temperature

**Night:** 55 to 60°F (13 to 15°C)

**Day:** 60 to 75°F (15 to 24°C)

#### Light

Keep light levels as high as possible while maintaining appropriate temperatures during production. Under garden/landscape conditions, Clear Crystal requires full sun; however, partial shade may be beneficial for retail shelf life.

## Fertilizer

Starting 1 week after transplant, apply fertilizer at rate 3 (175 to 225 ppm N/1.2 to 1.5 mS/cm) using predominantly nitrate-form fertilizer with low phosphorus. If needed, alternate with a balanced ammonium and nitrate-form fertilizer to encourage growth and balance the media pH. Maintain the media EC at 1.50 to 2.00 mS/cm and pH at 5.8 to 6.2. Excessive fertilizer levels will result in large, lush leaves and smaller flower count, whereas fertilizer stress will cause very small leaves, hard plants and yellow lower leaves.

## Irrigation

Maintain optimal media moisture (not too wet or too dry). Avoid overhead irrigation. Irrigation should take place during times when foliage will dry quickly, to prevent any disease incidence.

## Plant Growth Regulators

PGRs are not required. If needed, growth can be controlled by adjusting the fertilization and day/night temperatures during the production.

## Crop Scheduling

**Sow to transplant:** Approximately 4 weeks

**Transplant to flower:** 4 to 6 weeks seasonally

**Total crop time (sow to flower):** 8 to 10 weeks seasonally

## Common Problems

**Diseases:** Downy mildew. Also, a preventative fungicide application for damping-off during plug production is recommended.

**NOTE:** Avoid using copper-based fungicides on Alyssum.

**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.

