GrowerFacts

Zinnia Zahara® XL

(*Zinnia marylandica*)

Germination

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

Sowing

Plug tray size: Can be produced in 200, 288 or similar cell size plug trays. Cover the seed with a medium layer of vermiculite at sowing.

Stage 1 – Germination takes approximately 2 to 3 days.

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

Light: Light is not required for germination.

Relative humidity: Maintain 95 to 97% relative humidity (RH) until cotyledons emerge.

Plug Production

Stage 2

Temperature: 70 to 75°F (21 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: 70 to 75°F (21 to 24°C) days; 60 to 65° F (16 to 18°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: 65 to 70°F (18 to 21°C) days; 60 to 65° F (16 to 18°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.

Growth Regulators: PGRs are generally not required during plug production. If needed, plants can be treated once during the plug stage at about 10 to 14 days after sowing with a foliar spray of B-Nine/Alar (daminozide) at 1,250 to 2,500 ppm (1.5 to 3 g/l 85% formulation or 2 to 3.9 g/l of 64% formulation).

Growing On to Finish

Container Size
Zahara XL can be produced in 306 premium packs, 1801s, 4-in. (10-cm) pots or similar size containers.

Media
Use a well-drained, disease-free media with a pH of 5.5 to 6.2 and a medium initial nutrient charge.

Temperature

Night: 60 to 65°F (16 to 18°C)

Day: 65 to 70°F (18 to 21°C)

Light
Keep light levels as high as possible while maintaining appropriate temperatures.

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 nitrateform 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.

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
B-Nine/Alar (daminozide) at 3,500 ppm (4.1 g/l 85% formulation or 5.5 g/l of 64% formulation) applied twice as a foliar spray will control the plant growth. First application can be done 1 week after transplant,

followed by a second application 7 to 10 days later. For premium pack production, one additional B-Nine treatment may be needed.

Northwestern Europe: Zahara XL will require less PGRs under northwestern European conditions. Can use 2 applications of B-Nine/Alar (daminozide) at 1,600 ppm (1.9 g/l 85% formulation or 2.5 g/l of 64% formulation).

Crop Scheduling

Sow to transplant: Approximately 3 weeks

Transplant to flower: 8 to 9 weeks in Spring, 5 to 6 weeks in Summer

Total crop time (sow to flower): 11 to 12 weeks in Spring, 8 to 9 weeks in Summer Crop time will be shorter under long days than under short days.

Common Problems

Insect: Monitor for Aphids early in production, and Thrips during flowering.

Disease: Avoid high humidity and condensation in the greenhouse, as these conditions are favorable for Botrytis and Powdery Mildew incidence.

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