

Magellan™, Short Stuff™, Swizzle™, Uproar™, Zowie!™

Zinnia elegans

GERMINATION – Stage 0

Zinnias can be either direct sown into the final container or started in plug trays. Because Zinnia seed is fairly large, and growth rapid, a 128 or larger plug tray is advised.

Media pH: 5.5 – 5.8

GERMINATION – Stage 1

Expect radicle emergence in 1 days.

Visual Note: At the end of Stage 1, the radicle will have emerged and roots are beginning to form.

Moisture: Moisture level 2 (medium): Media has changed color from dark black to a medium brown. Sow on a media that is barely moist and the tray should feel light. Media should not be “bone” dry. Cover seeds with a light layer of coarse media to maintain moisture levels. Low moisture will help to discourage fungal attacks on the young seedling.

Media Temperature: 70 – 75°F (21 – 24°C)

Media EC: < 0.5. Zinnia is very sensitive to high salt levels.

Lighting: Light is not necessary for germination to occur.

GERMINATION – Stage 2

Visual Note: At the end of Stage 2, germination is completed. The roots are developing, a stem is present and the cotyledons have expanded.

Moisture: Moisture level 1 (dry): Media has changed color to a very light brown. When lightly touched, a minimal amount of moisture should be sensed.

Media Temperature: 65 – 68°F (18 – 20°C)

Fertilizer: If desired, fertilize established seedlings at 25 – 35 ppm nitrogen with a calcium-based fertilizer (13-2-13-6CA-3Mg).

Media EC: 0.5 – 0.75

Lighting: Provide 2000 foot candles (20,000 lux). Zinnias are light accumulators. The longer the days and higher the light, the sooner Zinnias will bloom. Lighting may trigger premature blooming in the plug.

GERMINATION – Stage 3

Visual Note: At the end of Stage 3, the roots should be penetrating the plug cell and the first true leaves have developed.

Moisture: Moisture level 1 (dry): Media has changed color to a very light brown. When lightly touched, a minimal amount of moisture should be sensed.

Media Temperature: 65°F (18°C)

Fertilizer: 25 – 35 ppm nitrogen with a calcium-based fertilizer.

Media EC: 0.5 – 0.75

Lighting: Provide 3000 foot candles (30,000 lux). Lighting may trigger premature blooming in the plug.

GERMINATION – Stage 4

Visual Note: At the end of Stage 4, the roots should hold the plug mass together easily. The shoots should have 2 – 3 sets of true leaves.

Moisture: Moisture level 1 (dry): Media has changed color to a very light brown. When lightly touched, a minimal amount of moisture should be sensed.

Media Temperature: 62 – 65°F (17 – 18°C)

Fertilizer: 25 – 35 ppm nitrogen with a calcium-based fertilizer.

Media EC: 0.5 – 0.75

Lighting: Provide 3500 foot candles (35,000 lux). Lighting may trigger premature blooming in the plug.

Growth Regulators: Zinnias will respond to B-Nine (daminozide) at 2500 ppm.

GROWING ON

Transplant as soon as root system is established. Root bound plugs do not transplant well.

Media pH: 5.5 – 5.8

Moisture: Alternate moisture level 3/1.5. Moisture level 3 (moist): Media is black but not glistening. Moisture level 1.5 (dry): Media has changed color to a very light brown. Good air circulation and water management is essential for the production of healthy Zinnias. It is advisable to water early in the day to allow the foliage to dry before nightfall. Rapid drying of the foliage will discourage disease outbreaks.

Temperature: 60 – 65°F (15 – 18°C) nights, 70 – 85°F (21 – 29°C) days.

Fertilizer: Fertilize weekly at 200 ppm nitrogen.

Lighting: Grow in full sun. Low light conditions will promote stretching of Zinnias. Crops finished under short days tend to exhibit a greater number of single blooms. Long days will correct this situation.

Growth Regulators: Pack production of ‘Short Stuff’ may require one application of B-Nine (daminozide) at 5000 ppm. Other Zinnias may need additional applications. Zinnias respond to DIF, B-Nine (daminozide), A-Rest (ancymidol), Bonzi (paclobutrazol), Sumagic (uniclazonol), or a tank mix of B-Nine/Cyocel (chlormequat chloride).

Common Pests: Aphids, Whitefly, Thrips

Common Diseases: Powdery Mildew, Botrytis Blight, Bacterial Leaf Spot, Alternaria Leaf Spot

SCHEDULING

Plug crop time: 1 – 2 weeks

Finish packs from a direct sow: 6 – 7 weeks

Finish a 4 inch crop from direct sow: 7 – 8 weeks

GARDEN SPECIFICATIONS

Light: Full sun

‘Short Stuff’ Garden Height: 8 – 10 inches (20 – 25 cm)

Garden Width: 8 – 10 inches (20 – 25 cm)

‘Swizzle’ Garden Height: 10 – 12 inches (25 – 30 cm)

Garden Width: 10 – 12 inches (25 – 30 cm)

‘Magellan’ Garden Height: 12 – 14 inches (30 – 35 cm)

Garden Width: 10 – 12 inches (25 – 30 cm)

‘Uproar’ Garden Height: 28 – 36 inches (70 – 90 cm)

Garden Width: 24 – 27 inches (60 – 68 cm)

‘Zowie!’ Garden Height: 24 – 30 inches (60 – 75 cm)

Garden Width: 24 – 27 inches (60 – 68 cm)

USDA Hardiness Zone: 10

AHS Heat Zone: 12 – 1

Note: These suggestions are only guidelines and may have to be altered to meet individual grower's needs. Check all chemical labels to verify registration for use in your region.