

Cultural Information for: Zinnia 'Profusion' Annual
Common Name: Zinnia
Botanical Name: Zinnia hybrida
Seed Count: 7,000-11,500/oz. 250-400/gr.
Optimum Germination Temperature: 76°F / 25°C
Optimum Growing Temperature: 65-70°F / 18-21°C

Plug Culture - 4 weeks (200 / 10 x 20 tray)

Stage 1 (days 1-5) Use a well-drained media with a pH between 5.8 and 6.2 with a soil EC of 0.75 mmhos (1:2 slurry). Prior to sowing, water the plug tray to the point of drip. Then, sow the seed and cover with medium vermiculite. Do not water after sowing or the day following sowing. Then, water the seedlings as needed allowing the media to dry slightly in between watering. An overly wet soil will decrease germination. Optimum soil temperature is 76°F/25°C.

Stage 2 (days 6-10) Zinnias germinate quickly and after emergence one should place plug trays in a well-ventilated greenhouse with high light. Maintain a day temperature of 70°F/21°C and a night temperature of 65°F/18°C. A light application of fertilizer at 75-100 ppm of nitrogen will greatly benefit in helping to establish strong and healthy seedlings.

Stage 3 (days 11-21) Water and fertilize Zinnias as needed to maintain healthy plugs. An application of 100-150 ppm's of nitrogen is recommended at least once a week. Watering just before wilt is recommended to avoid lush growth. One should water thoroughly to prevent high EC levels, (> 1.5 mmhos 1:2 slurry). Watering early in the morning allows the foliage to dry thoroughly and prevents potential disease problems. If necessary, one can apply B-9 at 2,500 ppm's to check growth 15-17 days after sowing.

Stage 4 (days 21-28) Zinnias develop rapidly and are often ready to transplant after three weeks, (depending upon the plug cell size used). One can drop the air temperature to 62°F/17°C to hold plug trays for a few days. Avoid temperatures below 60°F/16°C as this will invite disease problems.

Lighting: Zinnia Profusion flowers more quickly under short day length (< 12 hours). To delay flowering and build plant body, extend the day length to 16 hours from day 15 to day 28. For large containers (4 inch/10 cm. +) use a 128 (8 x 16) plug tray and provide long days from day 15 – 42.

Finished Production: 5-8 weeks

Container Size: Zinnia Profusion is a dwarf variety with strong basal branching. It is best to sell Zinnia Profusion in the green stage (no color) for high-density cell packs (36 cells or greater). For color sales, it is best to use larger containers like an 1801 or 4 inch/10 cm. pot.

Media: Peat-lite mixes work well at a soil pH of 5.5 - 6.2.

Temperature: Zinnia is sensitive to disease and cool temperatures can invite disease and foliage problems (below 60°F/16°C). Warm temperatures can stretch the plants (above 75°F/24°C). Profusion is very disease tolerant, but the above guidelines are recommended.

Fertilizer: Weekly applications of 200-250 ppm of nitrogen using a well-balanced calcium nitrate based fertilizer helps to produce plants of high quality. Optimum EC level is 1.0 - 1.2 mmhos (1:2 slurry). Zinnia is sensitive to boron deficiency which is characterized by tip abortion, crinkled leaves and leaf edge burn. Applying 0.25 ppm of boron with each fertilizer application is highly recommended.

Disease: Zinnia Profusion has good disease tolerance and is not generally attacked by the many foliar diseases that affect zinnia. Good sanitation and growing culture will also aid in keeping the plants healthy. Do not place heavy mulch around the base of the plants as this may cause stem rot at the soil line.

Pests: Thrips and aphids

Scheduling:

Container	Weeks from Sow	Comment
Cell Pack	9-10 weeks	Best sold green
4 inch/10 cm.	10-11 weeks	1 plant per pot
6 inch/15 cm.	11-12 weeks	3 plants per pot

Plants ultimately will reach 18 inches/45 cm. tall by 24 inches/60 cm. wide. Warmer areas, with a longer growing season, should allow for greater spacing.