

**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

**Optimum pH:** 5.8 – 6.2

**EC – Plug:** 0.4 – 0.8 mmhos/cm (1:2) / 0.9 – 2.0 (SME) / 1.1 - 2.6 (Pour Thru)

**EC – Finishing:** 0.9 – 1.3 mmhos/cm (1:2) / 2.1 – 3.5 (SME) / 2.7 - 4.6 (Pour Thru)

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

**Stage 1** (days 1-5) Use a well-drained media with a low nutrient charge. Prior to sowing, water the plug tray to the point of drip. Then, sow the seed and cover with a light cap of medium vermiculite. Do not water after sowing, neither the day of sowing nor 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. After emergence place the 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 50-100 ppm N 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 N is recommended at least once a week. Watering just before wilt is recommended to avoid lush growth. Water thoroughly to prevent high EC levels, (> 2.0 SME). Watering early in the morning allows the foliage to dry thoroughly and prevents potential disease problems. If necessary, one can apply B-Nine® (daminozide) at 2,500 ppm/0.25% to check growth 15-17 days after sowing.

**Stage 4** (days 20-28) Zinnias develop rapidly and are often ready to transplant after three weeks, (depending upon the plug cell size used). Option to drop the air temperature to 62 °F/17°C to hold plug trays for a few days. Avoid temperatures below 60°F/15°C which invites disease.

**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 cells) plug tray and provide long days from days 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). For color sales, use larger containers, such as an 18-cell pack or 4 inch/10 cm. pot.

**Media:** Peat-lite mixes with a blend of peat, perlite and vermiculite work well at a soil pH of 5.8 – 6.2.

**Temperature:** Zinnia is sensitive to disease and cool temperatures can invite disease and foliar 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 N using a well-balanced calcium nitrate-based fertilizer helps to produce plants of high quality. Zinnia is sensitive to boron deficiency, characterized by tip abortion, crinkled leaves and leaf edge burn. Applying 0.25 ppm of boron with each fertilizer application is necessary.

**Insects:** Aphids and thrips

**Disease:** Zinnia Profusion offers good disease tolerance and in general is not 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.

### 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 |

**Features:** Zinnia Profusion is available in both single and double flowers. Basic culture is identical for both types. Plants ultimately will grow to 18 inches/45 cm. tall by 24/ inches/60 cm. wide. Warmer areas, with a longer growing season, should allow for greater spacing.

*“All information given is intended for general guidance only and may have to be adjusted to meet individual needs. Cultural details are based on North American conditions and Sakata cannot be held responsible for any crop damage related to the information given herein. Application of recommended growth regulators and chemicals are subject to local and state regulations. Always follow manufacturer’s label instructions. Testing a few plants prior to treating the entire crop is best.”*