

<b>Cultural Information for:</b>	Gloxinia MultiBells	Annual
<b>Common Name:</b>	Gloxinia	
<b>Botanical Name:</b>	Sinningia speciosa	
<b>Seed Count:</b>	737,000/ounce	26,000/gram
<b>Optimum Germination Temperature:</b>	72-75°F / 22-24°C	
<b>Optimum Growing Temperature:</b>	65-72°F / 18-22°C	
<b>Optimum pH:</b>	5.8 – 6.2	
<b>EC – Plug:</b>	0.4 – 0.8 mmhos/cm (1:2) / 0.9 – 2.0 (SME) / 1.1 - 2.6 (Pour Thru)	
<b>EC – Finishing:</b>	0.9 – 1.3 mmhos/cm (1:2) / 2.1 – 3.5 (SME) / 2.7 - 4.6 (Pour Thru)	

## Plug Culture – 6 weeks (288 / 12 x 24 tray)

**Stage 1** (days 1-8) Sow pelleted seed into a 288-cell tray filled with a sterile and well drained media with good aeration. A slightly fertilized peat is recommended and works well. For optimum maintain a temperature of 72-75°F/22-24°C. Cover only with a thin layer of coarse vermiculite to allow some light for germination. Trays can be covered with thin plastic, if necessary, to maintain moisture but if covered do not expose trays to direct sunlight to avoid overheating.

**Stage 2** (days 9-21) Seedlings have now emerged and cotyledons are present. Maintain air temperature between 68-72°F/20-22°C. Lower humidity to 20-30% and fertilize with 75-100 ppm nitrogen from a well-balanced calcium nitrate-based fertilizer around day 10. Gloxinia is sensitive to boron deficiency so maintain media pH between 5.8 and 6.2 and supply 0.25 pm boron when fertilizing.

**Stage 3** (days 22-40) Gradually increase the fertilizer concentration to 100-150 ppm nitrogen to promote strong growth as seedlings progress. The young foliage is sensitive to cold water which causes burning. **To avoid damage to the foliage when watering overhead, the water temperature must be above 50°F/10°C.** This is commonly known as “ring spot”. You should heat the water if this is a concern. During winter the young seedlings benefit from supplemental HID lighting at 300-500-foot candles/3,200-5,400 lux for 16 hours. Under high light conditions seedlings benefit from a light shade of 40-50%. Do not exceed 2,000-foot candles/21,500 lux.

**Stage 4** (days 40-42) The plugs should have 4 true leaves and are approaching transplant stage. Transplant on time to avoid root bound plugs. Overgrown transplants flower prematurely with less flowers on smaller plants. Reduce fertilizer levels and lower the temperature down to 65 °F/18 °C to tone the plants.

## Transplanting to flower – 8-14 weeks

**Media:** Select a sterile well drained media with good aeration.

**Potting:** Gloxinia MultiBells is best suited for 5 inch/12.5 cm. pots. Plant the seedlings down so that the first set of “large” leaves is level with the media. Use care not to break off smaller leaves as it may invite disease. Drench with a broad-spectrum fungicide after transplanting.

**Spacing:** Plants can remain pot tight for six to seven weeks after potting. Afterward, space the plants for finishing.

**Temperature:** Optimum day temperature is 72°F/22°C, with the night temperature no lower than 65°F/18°C. Temperatures below 60°F/15°C delay flowering and increase production time.

**Watering and Fertilization:** Gloxinias perform best when they are kept evenly moist and never allowed to dry out and wilt which can cause stunting and delayed flowering. For the first weeks following transplant fertilize at 100 ppm nitrogen using a well-balanced calcium nitrate-based formulation. After plants are established apply 150 ppm nitrogen for best performance. Gloxinia is sensitive to boron deficiency characterized by deep dark green foliage, crinkled leaves and tip abortion. Maintain the media pH between 5.8 and 6.2 and apply 0.25 ppm of boron when fertilizing.

**Lighting:** Optimum light level is 2,000-2,500-foot candles/ 21,500-27,000 lux. For best results avoid strong sunlight. For winter growing apply supplemental lighting at 500-foot candles/5,000 lux for 10 hours.

**Growth regulators:** To avoid excess leaf elongation, apply 1,000 ppm of B-Nine® (daminozide) after plants fill the pot. Reapply, if needed, prior to visible bud.

**Pests:** Cyclamen mites, thrips and loopers

**Diseases:** Tomato Spotted Wilt Virus

**Crop Time:** 5 inch/12.5 cm. pots will flower in 14-20 weeks from sowing depending on the time of year and light levels. One plant per pot.

Sow	Transplant	Flower*
January	Late February	May
May	Late June	Late August / early September
September	Late October	Late January / early February

**\*On average, Gloxinia MultiBells flowers 2 weeks earlier than Avanti**

*“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.”*