Campanula Champion

Cultural Information for: Campanula Champion Annual
Common Name: Cup and Saucer
Botanical Name: Campanula medium
Seed Count: 23,000 /ounce 800 /gram
Optimum Germination Temperature: 65-68°F / 18-20°C
Optimum Growing Temperature: 55-60°F / 13-15°C

Plug Culture – 5 weeks (288 / 12 x 24 tray)

Stage One (days 1-10) Single sow pelleted seed into a 288 plug tray using a sterile and well-drained media with a pH of 5.8 to 6.2. Cover the seed lightly with vermiculite and maintain high humidity and sufficient moisture to melt the pellet. Optimum germination temperature is 65-68°F/18-20°C. For the highest germination, maintain an even temperature of 68°F/20°C for four days after sowing.

Stage Two (days 11-21) After the seedlings emerge, place the plug flats in a bright and cool greenhouse with good air circulation. Apply a light feed of 100 ppm Nitrogen using a well-balanced fertilizer. Maintain moderate air temperatures, 68-72°F/20-22°C, to avoid stress and prevent rosetting.*

Stage Three (days 22-34) Seedlings are beginning to fill in the plug tray. Fertilize as needed to maintain a media EC of 0.7 to 1.0 mmhos (2:1 dilution) using a well-balanced fertilizer. The use of Calcium Nitrate-based fertilizer is beneficial in helping to build strong and healthy transplants.

Stage Four (day 35) Seedlings should now have 2-3 true leaves and are now ready to transplant into cut flower beds. Campanula medium as a species possesses a tap root structure and root bound plants will not produce a healthy and strong plant. In order to maximize stem length do not delay transplanting.

*induced dormancy caused by stressing the plugs (uneven moisture, excess fertilizer, chemical damage, delayed transplanting, a day temperature above 82°F/28°C, a night temperature above 77°F/25°C, or insufficient lighting during flower bud initiation. Maintain optimum temperatures and transplant on time.

Transplanting to flowering – 14 weeks

Site preparation: Select a bed with good drainage and a soil that is high in organic matter. For best results provide full sun and good ventilation.

Plant Spacing:
Single Stem*: 4 – 6 inches/10 - 15 cm. apart
Multi Stem**: 10 – 12 inches/25 - 30 cm. apart
*single stem production will crop more quickly and is recommended for greenhouse production.
**multi-stem production is best for outdoors or in a cold frame. Expect 8-10 stems per plant.

Note: After transplant do not allow the plants to dry out in order to prevent tip burn.

Temperature: Ideal growing temperature is 55–60°F/13–15°C.

Fertilizer: Campanula is not a heavy feeder. Use a well-balanced calcium nitrate-based feed to maintain a soil EC of 0.7 to 1.0 mmhos (1:2 slurry). A lack of boron will cause distortion and tip abortion. A lack of iron will cause tip burn on the leaves.

Support: Campanula Champion series grows 2 to 2 ½ feet /60-90 cm. tall, but support is recommended to avoid damage to plants during windy periods; especially for single stem production.

Lighting: Campanula is a long day responsive plant and will require lighting for winter flowering. Light the plants when they have 8 to 10 true leaves, (4 to 5 weeks after transplanting), using “mum lighting” from 10 pm to 2 am for 40-45 days. No supplemental lighting is required for a late spring flowering (transplanting in mid February).

Note: Provide short day conditions (>12 hours) from sowing until 4-5 weeks following transplant to ensure sufficient vegetative growth.

Crop Time: In general, Campanula 'Champion' flowers in 130-150 days from sowing using the above culture. An early August sowing will yield cut flowers in late December to early January if the night temperature is maintained at a minimum of 50°F/10°C on the growing point and the crop is lighted for 40-45 days starting 4 to 5 weeks after transplanting. For late spring to early summer flowering from a February sowing, no day length manipulation is necessary.

*In cold winter areas, some growers have been successful transplanting plugs into outdoor beds in September and over-wintering them to produce 40 inch/100 cm. spikes the following spring. Results vary so trial first.

**In mild temperature regions, (Coastal California, Oregon, Washington, Alaska) year round production is possible with a black out system. During long day conditions (sowings from late February to Late July), maintain short day conditions (less than 12 hours) in the plug stage continuing until 4-5 weeks after transplanting and keep optimum production temperatures.

Harvesting: Cut stems when two or three lower buds are open. Place stems in tepid water and keep in a cool spot in an upright position to avoid stem bending.

Post Harvest Care: The best vase life is achieved by placing stems in 100°F/38°C water and a 5% sucrose pulse for the first 24 hours.