

**Cultural Information for:** Antirrhinum Floral Showers      Annual  
**Common Name:** Snapdragon  
**Botanical Name:** Antirrhinum majus  
**Seed Count:** 157,000 - 243,000/ounce      5,600 - 7,000/gram  
**Optimum Germination Temperature:** 65°F / 18°C  
**Optimum Growing Temperature:** 60-65°F / 15-18°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 (405 / 15 x 27 tray)**

**Stage 1** (days 1-7) Sow seed into trays filled with a sterile and well-drained media. Do not cover the seed as snapdragon requires light to germinate. Maintain a temperature of 65°F/18°C and sufficient moisture until germination is complete.

**Note:** Store seed in the refrigerator for 7-10 days prior to sowing to improve germination. Initially misting with KNO<sub>3</sub> at 50 ppm N\* promotes higher germination. (\*5 ounces/100 gallons, 375 grams/1,000 L).

**Stage 2** (days 8-15) The cotyledons are now visible, and roots are beginning to form. Maintain the media moist but not saturated to promote healthy root development and penetration. Maintain the air temperature at 65°F/18°C and apply a light feeding at 50-75 ppm nitrogen from a well-balanced calcium nitrate-based formulation. Supplemental lighting can be used to reduce crop time but maintain the photoperiod at 12 hours of light to encourage vegetative growth.

**Stage 3** (days 16-28) The first true leaves are developed, and roots are beginning to penetrate the media. Allow the media to dry slightly between irrigations to promote healthy root development. Maintain air temperature between 65–68°F/18-20°C. Increase the fertilizer rate to 75-100 ppm N once or twice per week to maintain strong growth. Attempt to maintain approximately 4 potassium: 2 calcium: 1 magnesium in the fertilizer for the best growth. Avoid ammonium-based fertilizers. Snapdragons are sensitive to high salt levels so do not overfertilize.

**Stage 4** (days -28-30) At the end of stage 4 the plugs should have 2-3 sets of true leaves, and the roots should hold the plug media together. Optimum air temperature is 60-65°F/15-18°C to help tone the plugs.

**Transplanting to flower – 6-7 weeks**

**Media:** Select sterile and well-drained media with a pH between 5.8 – 6.2.

**Temperature:** Optimum growing temperature is 60-65°F/ 15-18°C during the day and 60°F/15°C at night. Once established the night temperature may be reduced to 50-55°F/11-15°C.

**Fertilizer:** Apply 150-200 ppm of nitrogen as needed from a well-balanced calcium nitrate-based formulation to promote healthy growth. The use of Cal / Mag formulations like 15-5-15 work well to supply adequate amounts of magnesium. Avoid high rates of ammonium; especially at low temperatures, which promotes softer growth and stretched plants. High pH (>6.5) results in iron chlorosis.

**Lighting:** Supplemental lighting, up to 2,500-foot candles/ 27,000 lux, will hasten development and flowering.

**Insects:** Aphids, thrips and spider mites.

**Diseases:** Botrytis, downy mildew, powdery mildew, pythium, rust, Tomato Spotted Wilt Virus (TSWV) and Impatiens Necrotic Spot Virus (INSV).

**Crop Scheduling\*:**

Container	From transplanting	Plugs per container
Cell Packs	4 -5 weeks	1 per cell
4 inch / 10.5 cm.	5-6 weeks	1
6 inch / 15 cm.	6-7 weeks	3

**\*Note:** Reduce crop time by 1-2 weeks for late summer/early fall sales.

*“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.”*