PASSIAN in Seed

## Antirrhinum Candy Tops, Floral Showers

Crop	Antirrhinum
Series	Candy Tops, Floral Showers
Botanical name	Antirrhinum majus
Plant type	Annual
Seed type	Raw
Seed count	4,500-7,000 seeds / gr
Germination	20ºC - 5-7 days light favored
Growing	17-20°C
Optimum pH	5.8-6.2

## Plug Culture: 4 weeks (406 cell tray)

**Stage 1** (days 1-7) Sow seed into a plug trays filled with a sterile and well-drained media. Do not cover the seed as Antirrhinum requires light to germinate. Maintain a temperature of 18-20°C and enough moisture until germination is complete.

**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 18°C and apply a light feeding at 50-75 ppm nitrogen from a well-balanced calcium nitratebased 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 18-20°C. Increase the fertilizer rate to 75-100 ppm of nitrogen 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. Antirrhinum is sensitive

to high salt levels.

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

## Transplanting to finish – 6-8 weeks

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

**Temperature**: Optimum growing temperature is 17-20°C during the day and 15°C at night. Once established, the night temperature may be reduced to 11-15°C.

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

**Plant Growth Regulators**: Provide optimum temperatures and a negative DIF\* for natural height control.

Pests: ahids, spider mites, thrips

**Diseases**: botrytis, downy mildew, powdery mildew, pythium, tomato spotted wilt virus and impatiens necrotic spot virus.

## Scheduling:

Container	From transplanting	Seedlings per
		container
10.5cm	6-7 weeks	1
15cm	7-8 weeks	3

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

\*DIF is the difference between day temperature and night temperature which can affect plant height. In the natural world, positive DIF (when daytime temperature is higher than nighttime temperature) is common, however if this difference is made smaller, or in some cases negative DIF (nighttime temperature is higher than daytime temperature), plant height can be suppressed.

All information given is intended for general guidance only and may have to be adjusted to meet individual needs. Cultural details are based on Asia such as in Japan conditions and Sakata cannot be held responsible for any crop damage related to the information given herein. Always follow manufacturer's label instructions. Testing a few plants prior to treating the entire crop is best.