Cultural Information for: Antirrhinum Candy Showers Annual
Common Name: Snapdragon
Botanical Name: Antirrhinum majus
Seed Count: 157,000 - 22,700/ounce 5,600 - 8,000/gram
Optimum Germination Temperature: 65ºF / 18ºC
Optimum Growing Temperature: 60-65ºF / 15-18ºC

Plug Culture – 5 weeks (200 / 10 x 20 tray)
Stage 1 (days 1-10) Sow seed into trays filled with a sterile and well-drained media with an EC of 0.5 or less (1:2 slurry). Optimum pH is 5.5 to 5.8. Do not cover the seed as snapdragon requires light to germinate. Maintain a temperature of 65ºF/18ºC and sufficient moisture until germination is complete.

Stage 2 (days 11-18) 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 65ºF/18ºC and apply a light feeding at 50-75 ppm nitrogen from a well-balanced calcium nitrate based formulation.

Stage 3 (days 19-27) 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 65–68ºF/18-20ºC. Increase the fertilizer rate to 75-100 ppm nitrogen once or twice per week to maintain an EC level of 0.75 mmhos (1:2 slurry). Snapdragons are sensitive to high salt levels, (>1.0 mmhos).

Stage 4 (days -28-35) 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 60-65ºF/15-18ºC to help tone the plugs. Maintain the EC level at 0.75 to 1.0-mmhos (1:2 slurry).

Transplanting to flower
Media: Select a sterile and well-drained media with a pH between 5.5 -5.8 and low in nutrients (EC level less than 1.0 mmhos).

Temperature: Optimum growing temperature is 60-65ºF/15-18ºC during the day and 60ºF/15ºC at night. Once established the night temperature may be reduced to 50-55ºF/10-13ºC.

Fertilizer: Maintain the media EC between 1.0 to 1.5 mmhos (1:2 slurry) by applying 150-200 ppm of nitrogen as needed from a well balanced calcium nitrate based formulation. 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: Antirrhinum is a facultative long day plant. Providing long days (>14 hours) along with supplemental lighting, up to 2,500 foot candles/ 27,000 lux, will hasten development and flowering.

Pests and Diseases: Aphids, Thrips and Spider Mites. Botrytis, Downy Mildew, Powdery Mildew, Pythium, Rust, Tomato Spotted Wilt Virus and Impatiens Necrotic Spot Virus.

Crop Scheduling:

<table>
<thead>
<tr>
<th>Container</th>
<th>Plants per pot*</th>
<th>Weeks from transplant**</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 inch/10 cm.</td>
<td>1 multi-plug</td>
<td>5-6 weeks</td>
</tr>
<tr>
<td>1 Quart/12 cm.</td>
<td>1 multi-plug</td>
<td>6-7 weeks</td>
</tr>
<tr>
<td>6 inch/15 cm.</td>
<td>1 multi-plug</td>
<td>7-8 weeks</td>
</tr>
<tr>
<td>10 inch/25 cm.</td>
<td>3 multi-plugs</td>
<td>8-10 weeks</td>
</tr>
<tr>
<td>12 inch/30 cm.</td>
<td>4 multi-plugs</td>
<td>9-11 weeks</td>
</tr>
</tbody>
</table>

* multi-pellet with 4-5 seeds.
** depending on day-length and temperature.

Culture Watch Point: Candy Showers becomes receptive to flower bud initiation at 5 pairs of true leaves. To promote sufficient vegetative growth in the final container, transplant when plugs have around 2 leaf pairs. A photoperiod of 10.5 + hours is necessary to initiate and develop flowers.