

Snapshot Snapdragon

Antirrhinum majus

Approximate seed count: 180,000 S./oz.
(6,350 S./g)

Germination and Plug Production

Stage 1 – Time of radical emergence

Use a well-drained, disease-free seedling medium with a pH of 5.5 to 5.8 and EC less than 0.75 mmhos/cm (2:1 extraction).

Germination temperature: 64 to 68°F (18 to 20°C)

Timing: 4 to 6 days

Moisture: Medium

Light: Not required

Cover: Lightly with vermiculite

Stage 2 – Stem and cotyledons emerge

Timing: 7 to 14 days

Soil temperature: 65 to 70°F (18 to 21°C)

Moisture: Reduce moisture levels once radicle emergence occurs. Allow the soil to dry out slightly before watering. Irrigate early in the day so that foliage is dry by nightfall.

Light: 450 to 1,500 f.c. (5,000 to 16,000 Lux)

Fertilizer: 50 to 75 ppm N from 14-0-14 or calcium/potassium nitrate feed once per week when cotyledons are fully expanded. Alternate feed with clear water. Maintain water alkalinity at 60 to 100 ppm and ammonium levels at less than 10 ppm.

Soil pH: 5.5 to 5.8

Soil EC: Less than 0.75 mmhos/cm

Stage 3 – Growth and development of true leaves

Timing: 14 days

Soil temperature: 62 to 65°F (17 to 18°C)

Moisture: To promote root growth and control shoot growth, allow the soil to dry between irrigations, but avoid wilting.

Light: 1,000 to 2,500 f.c. (11,000 to 27,000 Lux)

Fertilizer: 100 to 150 ppm of 20-10-20 alternating with 14-0-14 or other calcium/potassium nitrate fertilizer, every two or three irrigations. Supplement with magnesium one to two times during this stage using magnesium sulfate (16 oz./100 gal.) or magnesium nitrate. Do not mix magnesium sulfate with calcium nitrate as precipitate will form.

Soil pH: 5.5 to 5.8

Soil EC: Less than 1.0 mmhos/cm

Plant Growth Regulators: Use DIF whenever possible. A-Rest sprayed 3 and 4 weeks after sowing at 10 ppm is effective in controlling height.

Stage 4 – Plants are ready for transplant or shipping

Timing: 7 days

Soil temperature: 60 to 62°F (16 to 19°C)

Moisture: Allow soil to dry thoroughly between irrigations, but avoid wilting.

Light: 1,000 to 2,500 f.c. (11,000 to 27,000 Lux)

Fertilizer: 100 to 150 ppm N from 14-0-14 or calcium/potassium nitrate feed as needed. Avoid ammonium fertilizers in Stage 4.

Soil pH: 5.5 to 5.8

Soil EC: Less than 0.75 mmhos/cm

Growing On to Finish

Use a well-drained disease-free soilless medium with a medium initial nutrient charge and a pH of 5.5 to 6.2.

Temperature: 45 to 55°F (10 to 13°C) nights and 55 to 70°F (13 to 22°C) days. Avoid night temperatures above 55°F (13°C) as this will reduce stem strength. The best time to grow Snapdragons is Autumn through early Spring, when cooler growing conditions can be maintained.

Moisture: Allow soil to dry slightly between waterings, but avoid wilting.

Light: Keep light levels as high as possible while maintaining recommended temperature.

Fertilizer: Every other irrigation, apply 150 ppm N from 15-0-15, alternating with 20-10-20. Alternate feed with clear water.

Soil pH: 5.5 to 6.2

Soil EC: 1.0 mmhos/cm (using 1:2 extraction). Provide good airflow at the plant level.

Controlling Height:

- Once plants are rooted to the sides of the containers they can be allowed to dry slightly prior to irrigation.
- Withhold fertilizer, especially phosphorous and ammonium-form N.
- Snapdragons are responsive to day/night temperature differential (DIF) and are shorter with a negative DIF.
- When grown as recommended under cool temperatures and high light, no growth regulators should be needed. B-Nine, Bonzi and Sumagic are effective in controlling height in snapdragons, but may delay flowering and will lead to less uniform flowering time.

Crop Scheduling

Sow to transplant (288-cell plug tray): 5 to 6 weeks

Transplant to saleable packs: 4 to 6 weeks

Common Problems

Insects: Thrips, aphids

Diseases: Downy mildew, *Botrytis*, powdery mildew