

Solstice Series Snapdragon

Super-Quick “Knee-High” Garden Snaps!

■ “Speedy” sums up the exciting **Solstice** series of **Winter-flowering** snapdragons – this super-quick series **flowers 30 to 60 days faster under short days** than other intermediate varieties.

■ **Solstice** snapdragons deliver excellent seed quality with an **90%+ Yield Potential rating**.

■ These “knee-high” garden snaps grow to about **16 to 20 in. (40 to 50 cm) tall** outdoors, making them a great choice for **home garden cutflowers**.

■ **Solstice** snapdragons perform best under cool temperatures (lower than 55°F/13°C), producing **optimum stem strength** under those conditions.

■ A good choice for **producing in Jumbo packs, pots and gallon containers**, the recommended sowing time in the northern hemisphere is September through January. In the southern hemisphere, sow from March through July.

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: 64 to 68°F (18 to 20°C)

Timing: 4 to 8 days

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

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 60-100 ppm and ammonium levels at less than 10 ppm.

Soil pH: 5.5 to 5.8

Soil EC: <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: <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: <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.

Weeks to Flower (Packs):

September and mid-January sowings	9 to 11
October to early January sowings	14 to 15

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 **Solstice** snaps 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)

Controlling Height:

- Once plants are rooted to the sides of the containers they can be allowed to wilt 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, no growth regulators should be needed. B-Nine, Bonzi and Sumagic are effective in controlling height in snapdragons, but may delay flowering.

Common Problems

Insects: Thrips, aphids

Diseases: Downy mildew, *Botrytis*, powdery mildew

“Green Thumb” Tips

For the Grower

- Good choice for producing in Jumbo packs, pots and gallon containers.
- Produce in Autumn through early Spring when cooler growing conditions can be maintained.

For the Retailer

- Partial shading is beneficial to **Solstice** snapdragons in the retail setting.
- Keep plants on the dry side, but do not allow to wilt before watering.

For the Home Gardener

- Grow **Solstice** snapdragons in full sun.
- Excellent as cutflowers---after cutting, fertilize plants lightly to encourage new blooms.

PanAmerican Seed

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