

easy grow guide

nicotiana avalon

(F1 Nicotiana x sanderae)



Plug Production: 512 plugs or larger

Sowing/Media:	Use a well-drained, disease-free, peat based plug medium with pH 5.5-5.8, EC <0.75 mmhos. No covering needed. Use pelleted seed for ease of sowing.
Germination Stages 1 & 2: (7-10 days)	Keep medium uniformly moist, not saturated and dry down the surface once cotyledons are open. Media temperature should be 72-75°F (22-24°C), light is beneficial for germination and early growth but keep light levels <1500 f.c.
Germination Stage 3:	Media temperature should be 68-72°F (20-22°C). Dry the media down between irrigations to improve rooting but avoid wilt. Keep light levels between 2000 and 3000 f.c. Extending daylength >14 hour days with HID lights during periods of low light will improve growth rate and speed up flowering. Feed every other watering with 100-150ppm N from 15-5-15, 17-5-17. Keep media pH at 5.5-5.8 definitely <6.5, EC 1.0-2.0 mmhos.
Germination Stage 4:	Media temperature can be lowered to 62-65°F (16-18°C). Dry down between irrigations avoiding wilt. Keep light levels around 3000 f.c. Fertilize as required using 13-2-13 to help tone seedlings before transplanting but monitor pH

Growing On to Finish: Packs, 4" (10.5cm) pots

Media:	Use a well-drained, disease free, peat-based growing mix with pH 5.5-5.8 and EC <1.5 mmhos. Avoid burying plugs to keep the crown of the plant out of the media.
Temperatures:	Temperatures for rooting out after transplant should be 65-68°F (18-20°C) Temperatures for growing on can be lowered to 62-65°F (16-18°C).
Light:	Light levels should be maintained at 3000 - 5000 f.c. HID lights can be used to extend daylength beyond 14 hours during periods of low light. This will promote more compact growth and earlier flowering.
Irrigation:	Practice a good wet/dry moisture cycle to control height and root growth but avoid wilt and overwatering as it can cause large cabbage like leaves.
Fertilizer:	Feed 1-2 times per week with 150ppm N from 20-10-20, 15-5-15 or 17-5-17. Keep media pH 5.5-5.8, definitely <6.5 and media EC 1.5 - 2.0 mmhos.
Growth Regulators:	Growing on the dry side is beneficial to keep plant height down. Use sprays of B-Nine (1500-5000 ppm), A-Rest (3-7 ppm), Bonzi (10- 30 ppm), or Sumagic (5-10 ppm) as needed once plants are established. Take care with Bonzi as overdosing can cause the foliage to crinkle. It is best to run your own trials to avoid overdosing, as weather and cultural regimes can affect the requirements.
Pests:	Aphids, Thrips, Whitefly
Diseases:	Downy Mildew, Pythium, Botrytis, high pH >6.5 or low iron can cause yellowing of the upper leaves.

Plug Times:

512 Plug:	3-4 weeks from sowing to transplant
288 plug:	4-5 weeks from sowing to transplant

Transplant to Finish:

Container	Plants/Container	Transplant to Finish	Total Crop Time
Packs	1 x plug	5-6 weeks	9-11 weeks
4 inch (10.5cm):	1 x plug	6-7 weeks	10-12 weeks

Crop times are based on optimum conditions. Alternative environmental conditions and cultural regimes can lengthen the crop times stated above.