

# Antirrhinum majus F1 — Cultivation manual

## Cut flower culture

**Culture location:** greenhouse/open field  
**Sowing method** TP  
**Sowing season** yearround (greenhouse)

**Germ temp.** 18-21°C (65-70°F)  
**Growing temp.** variable (see notes)

**Plug crop time** 4 - 5 weeks

**Crop duration**  
8-12 weeks from planting  
(winter: 16 to 20 weeks)

**Seed requirement**  
0,3 gr for 1000 plants  
1 seed per plug

**Pests/diseases**  
Aphids, caterpillars, miners, true and downy mildew, Rhizoctonia and rust. A preventative fungicide program is advised.

**Fertilization (f)**  
- Moderate requirement, apply regularly.  
- At bud formation stage, extra potassium nitrate is required.  
- Antirrhinum is very sensitive to high salts and high ammonium levels.  
- High media pH (>6.5) may cause boron and iron deficiency.

## Cultivation tips

- Crop duration strongly depends on cultivation method, daylength and temperature.
- Flower initiation occurs when young plants have more than 5-10 pairs of leaves.

## Sowing details

**Pre-sow and transplant (TP):**  
Initial sowing media: pH 5.5 – 5.8  
EC < 0.75 mmhos/cm  
Sow: 1 seed per plug (tray 288)  
Cover: light cover with coarse vermiculite

**Days 0 - 5**  
(m) moist to wet  
(t) 18-21°C (65-70°F)  
(l) optional:  
100 – 1,000 lux (10 - 100 fc)

**Days 6 - 18**  
(m) normal  
(t) 16-18°C (60-65°F)  
(l) 11.000-27.000 lux (2500-5000 fc)  
(f) 25-50 ppm N, < 0.7 EC

**Days 19 - 24**  
(m) normal to dry  
(t) 16-18°C (60-65°F)  
(l) 11.000-27.000 lux (1000-2500 fc)  
(f) < 100 ppm N, < 0.7 EC

**Days 25 >**  
(m) normal to dry  
(t) 16°C (60°F)  
(l) 27.000-54.000 lux (2500-5000 fc)  
(f) 100 to 175 ppm N, 0,7 to 1,2 EC

## Notes

- Optimum growing temperature:
- Group I day: 10-13°C (50-55°F)  
night: 7 - 10°C (45-50°F)
  - Group II: day: 13-16°C (55-60°F)  
night: 10-13°C (50-55°F)
  - Group II-III: day: 14-18°C (57-65°F)  
night: 13-16°C (55-60°F)
  - Group III-IV: day: 16-18°C (60-65°F)  
night: > 16°C (>60°F)
  - Group IV: day: > 18°C (>65°F)  
night: > 16°C (>60°F)

## Growing on

**Soil/media**  
pH 5.5 – 5.8, EC < 0.75 mmhos/cm

**Netting**  
Netting is advised. Lift regularly.

**Pinching**  
Pinching is not recommended.

**Plants density**  
40-64 plants per gross m<sup>2</sup> (or up to 85-110 pl/m<sup>2</sup> depending on light levels).

**Moisture (m)**  
As soon as the buds have formed, irrigation should be reduced.

**Temperature (t)**  
Optimum temperature: see note.  
Low temperatures improve crop quality.  
In winter: 6 - 8°C (42-48°F).  
An active climate and horizontal airflow are recommended.

**Light (l)**  
Optimum day light levels per group:  
Grp I: 11,000 - 27,000 lux (1000-2500 fc)  
Grp II: 16,000 - 32,000 lux (1500-3000 fc)  
Grp II-III: 20,000 - 38,000 lux (1900-3500 fc)  
Grp III-IV: 27,000 - 54,000 lux (2500-5000 fc)  
Grp IV: 32,000 - 54,000 lux (3000-5000 fc)

## Harvest

- Harvest when 2 or more buds have opened (winter: 4 to 6 buds). Remove lower leaves. Place upright in water immediately. Cool storage.  
For post harvest treatments, see: [www.vbn.nl/en/list-pre-treatments/](http://www.vbn.nl/en/list-pre-treatments/)

This information is for general guidance only, and is in some cases specific for North European conditions. No guarantee is given for the result of the crop, nor is liability accepted for the consequences of applying the indications given.