Cyclamen persicum miniature and intermediate flowers series

Central Europe
North Europe

Micro
Mini compact, medium, vigorous
Midi
Mini outdoor

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### Finished Plant Cyclamen mini and intermediate-flowered crop planning

<table>
<thead>
<tr>
<th>Series</th>
<th>Type</th>
<th>Leaf colour</th>
<th>Pot size</th>
<th>Best suited for flowering period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picola</td>
<td>micro compact</td>
<td>green</td>
<td>6 - 10.5 cm</td>
<td>Sept - Dec.</td>
</tr>
<tr>
<td>Seewhy</td>
<td>mini compact</td>
<td>green</td>
<td>6 - 10.5 cm</td>
<td>June - Oct.</td>
</tr>
<tr>
<td>Facila</td>
<td>mini compact</td>
<td>green</td>
<td>10.5 - 12 cm</td>
<td>Sept - Feb.</td>
</tr>
<tr>
<td>Midori (Synchro)</td>
<td>mini medium</td>
<td>green</td>
<td>9–12 cm</td>
<td>June - Dec.</td>
</tr>
<tr>
<td>Wintfall</td>
<td>mini vigorous</td>
<td>green</td>
<td>9–12 cm</td>
<td>Aug - Feb.</td>
</tr>
<tr>
<td>Silverado</td>
<td>mini</td>
<td>silver</td>
<td>9–12 cm</td>
<td>June - Feb.</td>
</tr>
<tr>
<td>Snowridge mini/midi</td>
<td>mini / midi</td>
<td>green</td>
<td>9 - 12 cm</td>
<td>June - Feb.</td>
</tr>
<tr>
<td>Merita</td>
<td>midi</td>
<td>green</td>
<td>10.5–12 cm</td>
<td>Aug - Feb.</td>
</tr>
<tr>
<td>Rocolina</td>
<td>midi</td>
<td>green</td>
<td>10.5–12 cm</td>
<td>Oct - March</td>
</tr>
<tr>
<td>Laser (Synchro)</td>
<td>midi</td>
<td>green</td>
<td>10.5–12 cm</td>
<td>Aug - Feb.</td>
</tr>
</tbody>
</table>

### Series Outdoor

<table>
<thead>
<tr>
<th>Series Outdoor</th>
<th>Type</th>
<th>Leaf colour</th>
<th>Pot size</th>
<th>Best suited for flowering period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melody</td>
<td>mini compact</td>
<td>green</td>
<td>9 - 10.5 cm</td>
<td>Aug - Nov.</td>
</tr>
<tr>
<td>Goblet</td>
<td>mini compact</td>
<td>green</td>
<td>9-10.5 cm</td>
<td>Aug - Jan.</td>
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<tr>
<td>Outsider</td>
<td>mini compact</td>
<td>green</td>
<td>9-10.5 cm</td>
<td>Aug - Nov.</td>
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</tbody>
</table>

### Remarks

Allow 1-2 weeks extra culture time for Laser, Silverado and Snowridge midi. If potted from a 128 or 72 plug the culture time can be decreased with 1-2 weeks. North Europe growers use 10cm or 12cm pots. South Europe we larger pots can be used up to 17cm. Culture time is depending on ADT and needs to be altered if grown at different ADT.
Scheduling from 288/264 or similar plug type for 10.5 cm pot with average daily temperature (ADT) adjusted to light levels in Northern European area.

HID light recommended to minimum light level 5 mol/cm²/day will promote flowering.
Cultivation Advice

Alter temperature setpoints according to light levels. In fall and winter light levels generally are low and temperature setpoints are best decreased for optimum plant quality. Please note that lower temperatures will increase culture time.

PGR Applications
Not recommended gibberellic acid will accelerate flowering produces soft stems and distorted flowers.

Spacing
No spacing for the first 3 to 4 weeks after potting for a better micro-climate. Spacing after this time will improve the quality of the plant, keeps it compact gives early flowering and improves resistance to diseases. Space the plants in time before they touch each other. That way the plant grows round and compact and the leaf stems remain shorter and stronger.

Light
Cyclamen require a light intensity of around 40,000 lux. Shade at 50,000 lux. Recommend whitewashing of the glasshouse or shading screens. Shading generally reduces the number of flowers and should be regulated properly. The leaves will become soft and wilt.

Irrigation
Keep in mind that smaller pots have little water retention capacities. Watering therefore has to be done more often than with larger pots. When the days are getting shorter continue with an irrigation every 2 to 3 days. Avoid getting the plants to wet. There are several ways of irrigation: from above using sprinkler, through drip or via ebb and flow systems. During the first growing period it is easy to irrigate from above. In the second growing stage this will be harder since the leaves cover the pot ball and irrigation is therefore uneven. As soon as flowers appear we advise against irrigation from above. The flowers will get “dirty” and may develop Botrytis. This reduces the ornamental value.

Fertilization & Substrate
During the first growing period the plant needs to develop many leaves. With more leaves the plant becomes stronger and more flowers can be produced. Therefore it is advisable to add a bit more nitrogen in the fertilizer during the first growing stage. The optimal proportion of N:K is 1:1 (15-5-15). The first growing phase takes approximately 8-12 weeks after potting, depending on size and variety/type of the young plant.

In the second growing period the plant develops flowers buds and flowers. In this stage potassium is an important element to keep the plants compact and strong as well as to develop stronger flower stems and flowers. Also Calcium and Silica have a positive influence on the quality of the flowers.

Tips & Tricks
Choose a pot with many holes for drainage and use potting soil with sufficient air for good development of the roots. Do not plant the corm to deep when transplanting. Plant the tuber just under the soil with the heart of the plant and the upper side of the tuber just above the soil. By doing so the heart of the plant develops better and the leaf stems remain strong.

Pests
Aphids, Thrips, Cyclamen mites, Fungus gnats and Shore Flies can be vectors for Fusarium.

Diseases
Thielaviopsis: old roots brown, tips white.
Cylindrocarpon: roots from top brown & wet.
Rhizoctonia, Sclerotinia: pale white leaf stem.
Pythium, Phytophthora: roots black, soft rot.
Insects: roots eaten.
Other: Botrytis, Fusarium, Erwinia.

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Finished plant cultivation advice

Culture guideline at optimum average daily temperature 16–18°C:

<table>
<thead>
<tr>
<th>Culture week</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tr>
<td>Handling</td>
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<td>Temperature D/N</td>
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<td>16-18°C</td>
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<tr>
<td>Light</td>
<td>10-15 mol/cm²/day, additional HID light is beneficial to promote flowering if light level is &lt; 5 mol/cm²/day</td>
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<td>Shading</td>
<td>600-700 W/m²</td>
<td>500-600 W/m²</td>
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<td>Humidity</td>
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<tr>
<td>EC growing medium</td>
<td>0.8-1.0 mS/cm</td>
<td>1.2 mS/cm</td>
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<tr>
<td>EC feeding in mS/cm</td>
<td>1.5 mS/cm</td>
<td>2.0 mS/cm</td>
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<tr>
<td>Fertilizer</td>
<td>N : K 1 : 2</td>
<td>N : K 1 : 3</td>
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</tbody>
</table>

Legend

- **Soil moisture level**
  - 5 saturated: water is easily observed. When the substrate is touched, water moves out freely from top to bottom.
  - 4 wet: water is not easily observed. When the substrate is touched, there is very little movement of water from top to bottom.
  - 3 moist: the substrate is black but not glistening. When the substrate is touched, there is water, but virtually no water movement.
  - 2 medium: the substrate turns from dark to medium brown. There is no water movement when touched.
  - 1 dry: the substrate changed color to very light brown.

- **Culture stages Cuttings / Seeds**
  - callus development / germ1, radicle emergence
  - root development / germ2, cotyledon expansion
  - leaf development / plug bulking
  - plug finishing / plug finishing

- **EC zones feeding mS/cm**
  - 1 0.5-1.0 mS/cm
  - 2 1.0-1.5 mS/cm
  - 3 1.5-2.0 mS/cm
  - 4 2.0-2.5 mS/cm
  - 5 2.5-3.0 mS/cm
  - 6 3.0-3.5 mS/cm

- **EC zones growing medium mS/cm (Sonneveld 1:1.5)**
  - 1 0.5-0.75 mS/cm
  - 2 0.75-1.0 mS/cm
  - 3 1.0-1.25 mS/cm
  - 4 1.25-1.5 mS/cm
  - 5 1.5-1.75 mS/cm
  - 6 1.75-2.0 mS/cm
  - 7 2.0-2.25 mS/cm

- **Temperature zones**
  - 1 0-6°C
  - 2 6-10°C
  - 3 10-12°C
  - 4 12-14°C
  - 5 14-16°C
  - 6 16-18°C
  - 7 18-20°C
  - 8 20-22°C
  - 9 >22°C

- **Light zones**
  - 1 total darkness
  - 2 short day <12 h/short day treatment
  - 3 shaded
  - 4 no-shading / natural light
  - 5 supplemental light > 14 h/long day treatment
  - 6 night interruption

- **Shading**
  - 1 shading > 250 Wm²
  - 2 shading > 450 Wm²
  - 3 shading > 750 Wm²

- **ST** sticking URC
- **RD** root development
- **SC₁** sowing no Vermiculite cover
- **SC₂** sowing plus light Vermiculite cover
- **SC₃** sowing plus thick Vermiculite cover
- **RE** radicle emergence
- **Cet** cotyledon
- **M₁** mist day and night
- **M₂** mist day – dry night
- **W** end mist
- **FC** fleece cover

- **Handling**
- Cutting week
- EC growing medium
- EC feeding in mS/cm
- Fertilizer

- **Legend**
- P petals
- S petals
- F flowers
- F flowers
- F flowers
- 0.8-1.0 mS/cm
- 1.2 mS/cm
- 2.0 mS/cm
- N : K 1 : 2
- N : K 1 : 3

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