



## CROP MANUAL

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# Cyclamen persicum large flowered series

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North Europe  
Central Europe



Medium  
Large compact  
Large

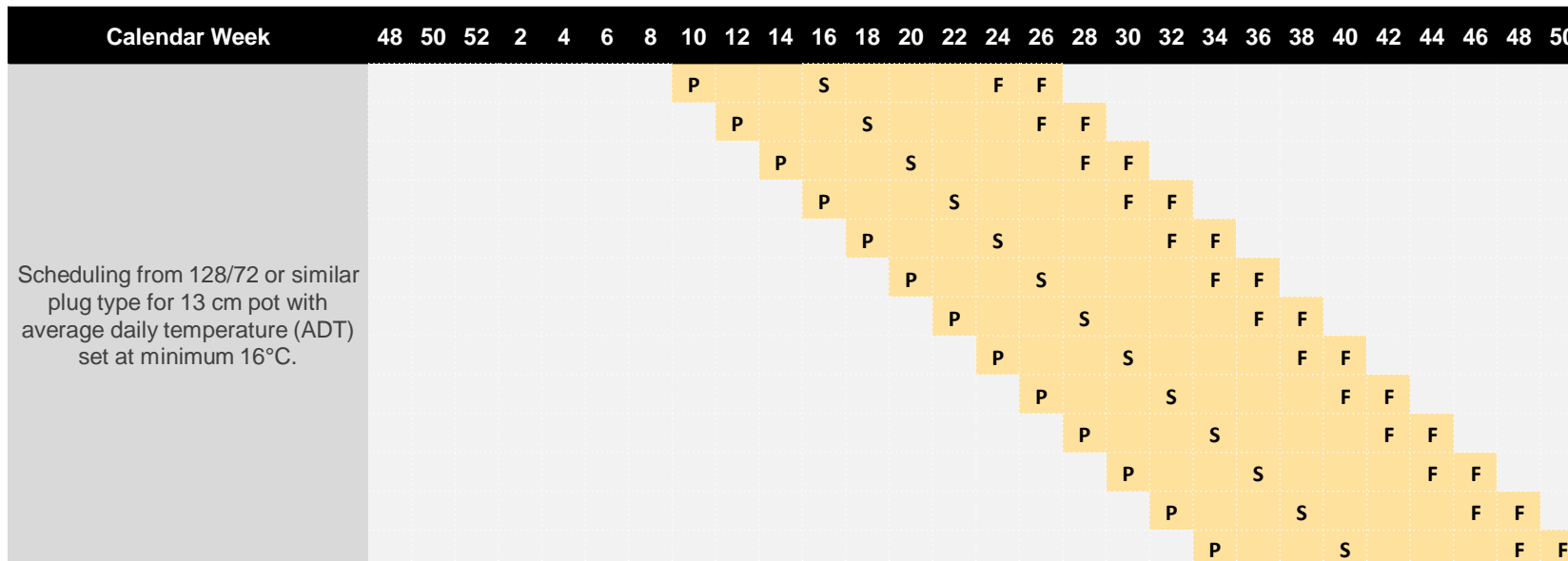
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# Finished Plant Cyclamen large flowered crop planning

Series 	Type 	Leaf colour 	Pot size 	Flowering weeks
Friller	medium	green	12-16 cm	Aug-Dec.
Perfetto (Synchro)	large compact	green	12-14 cm	Aug-Dec.
Snowridge Maxi	large compact	green	12-16 cm	Aug-Dec.
Maxora fringed	large compact	green	12-16 cm	Oct-Feb.
Sierra (Synchro)	large	green	12-16 cm	Aug-Nov.
Contiga	large	green	12-16 cm	Aug-Jan.
Rainier	large	green	13-19 cm	Oct-Feb.
Magnia	large	green	14-19 cm	Sep-Jan.
Fleur en Vogue	large	green	12-16 cm	Sep-Dec.
Winter Ice	large	silver	13-19 cm	Oct-Jan.

## Remarks

Allow 1-2 weeks extra culture time for Friller and 1-2 weeks less for Sierra. If potted from a 288/264 plug the culture time must be increased with 1-2 weeks. Culture time is depending on ADT and needs to be altered if grown at different ADT.



# 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.



## 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,



## 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 too 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.



## 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.






# Finished plant cultivation advice

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





Culture week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Handling	P					S								F	F	F
Temperature D/N	16-18°C															
Light	10-15 mol/cm <sup>2</sup> /day, additional HID light is beneficial to promote flowering if light level is < 5 mol/cm <sup>2</sup> /day															
Shading	600-700 W/m <sup>2</sup>												500-600 W/m <sup>2</sup>			
Humidity	50–70%															
Moisture	3			3-2						3						
pH	6.0-6.2															
EC growing medium	0.8-1.0 mS/cm												1.2 mS/cm			
EC feeding in mS/cm	1.5 mS/cm						2.0 mS/cm									
Fertilizer	N : K 1 : 2						N : K 1 : 3									

## Legend







### Soil moisture level

	<b>5 saturated:</b> water is easily observed. When the substrate is touched, water moves out freely from top to bottom.
	<b>4 wet:</b> water is not easily observed. When the substrate is touched, there is very little movement of water from top to bottom.
	<b>3 moist:</b> the substrate is black but not glistening. When the substrate is touched, there is water, but virtually no water movement.
	<b>2 medium:</b> the substrate turns from dark to medium brown. There is no water movement when touched.
	<b>1 dry:</b> 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

	<b>1</b> 0,5–1,0 mS/cm
	<b>2</b> 1,0–1,5 mS/cm
	<b>3</b> 1,5–2,0 mS/cm
	<b>4</b> 2,0–2,5 mS/cm
	<b>5</b> 2,5–3,0 mS/cm
	<b>6</b> 3,0–3,5 mS/cm







### EC zones growing medium mS/cm (Sonneveld 1:1,5)

	<b>1</b> 0,5–0,75 mS/cm
	<b>2</b> 0,75–1,0 mS/cm
	<b>3</b> 1,0–1,25 mS/cm
	<b>4</b> 1,25–1,5 mS/cm
	<b>5</b> 1,5–1,75 mS/cm
	<b>6</b> 1,75–2,0 mS/cm
	<b>7</b> 2,0–2,25 mS/cm




### Temperature zones

	<b>1</b> 0–5°C
	<b>2</b> 5–8°C
	<b>3</b> 8–12°C
	<b>4</b> 12–14°C
	<b>5</b> 14–16°C
	<b>6</b> 16–18°C
	<b>7</b> 18–20°C
	<b>8</b> 20–22°C
	<b>9</b> >22°C

### Light zones

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

### Shading

	<b>1</b> shading > 250 W/m <sup>2</sup>
	<b>2</b> shading > 450 W/m <sup>2</sup>
	<b>3</b> shading > 750 W/m <sup>2</sup>

<b>ST</b>	sticking URC	<b>L</b>	lift cover
<b>RD</b>	root development	<b>G</b>	gapping
<b>SC<sub>0</sub></b>	sowing no Vermiculite cover	<b>TP</b>	transplanting
<b>SC<sub>1</sub></b>	sowing plus light Vermiculite cover	<b>T</b>	yp1 transplanting
<b>SC<sub>2</sub></b>	sowing plus medium Vermiculite cover	<b>C</b>	cover to protect from frost
<b>SC<sub>3</sub></b>	sowing plus thick Vermiculite cover	<b>PGR</b>	PGR treatment (spray)
<b>RE</b>	radicle emergence	<b>PO</b>	PGR treatment (drench) or heavy spray
<b>Cot</b>	cotyledon	<b>3&lt;</b>	pinch
<b>M<sub>1</sub></b>	mist day and night	<b>DE</b>	disbud
<b>M<sub>2</sub></b>	mist day – dry night	<b>P</b>	potting
<b>W</b>	end mist	<b>S</b>	spading
<b>FC</b>	fleece cover	<b>F</b>	flowering
		<b>LF</b>	leaf removal and maintenance
			start short day