

# Cultural recommendation

## Pot Carnation

### Description

**Name:** Dianthus cultivars

**Family:** Caryophyllaceae

**Series:** Oscar®, SuperTrouper®, Colores®, Capitan®, DiaDeur, Carmen, Diantica®, Pillow



### Product use

**Use:** Perennial and bedding plant, ideal as gift plant

**Exposure:** Full sun part shade

### Technical recommendations

**Potting and Spacing:** Rooted cuttings should be planted so that the top of the rooting medium is at or slightly below the top of the growing medium in order to avoid the risk of stem diseases. Crop schedule depends on variety selection, pot size, light intensity, temperature, location and date of planting. Pot size 10-12 cm final density 40-60 plants/m<sup>2</sup>. Crop time (14-27 weeks).

**Substrate:** Use a well-drained, disease-free, soilless medium with a good structure and pH 5.8-6.2. Most of the commercial substrates contain added starter charge of fertilizer (1-1,2 gr/l) that will provide enough nutrients for the first couple of weeks after planting.

**Fertilizer:** Start feeding when first roots become visible. During the first 3-4 weeks, use a complete fertilizer 15-10-15 N-P-K with Ca, Mg and micronutrients at 1-1,5 gr/l in every watering. After this initial period switch to a fertilizer higher in potassium (K) 16-5-25 or 10-10-30 depending on the growth.

**Temperature:** Temperature and light conditions are keys factor in growing speed. During the first 3-4 weeks keep night temperatures between 15-16°C (59-61°F) and day temperatures between 18-20°C (64-68°F) to promote roots development. From week 5, night temperatures can drop to minimum 5-6 °C (41-43°F) and day temperature to 8-16°C (46-61°F) but under this temperature regimen, the growing cycle will be longer. Cool temperatures and high light improve plant quality

**Water:** During the first couple of weeks maintain a fairly high humidity in the substrate until roots are well establish into the growing media. After this period and when growing during autumn/winter seasons, keep the crop on the dry side. Watering should preferably take place in the morning and make sure it dries quickly to prevent diseases. Over irrigation results in soft- stretched growing, stem elongation and poor-quality plants. Use only overhead irrigation with good quality water. During flowering periods make sure that leaves and flower dries quickly to avoid diseases.

**Light:** Carnation need plenty of light to produce high quality plants. Full light conditions are recommended throughout the crop (> 50 Klux). Growth and flowering improve under long day conditions. High light conditions have an important effect on keeping the growth more compact strong plants with better branching capacities. From middle February, under low light conditions, induction light (3.5-4 Klux) during 2-3 weeks is recommended for early flowering. During the lighting period keep the temperature between 12-14°C (54-57°F).

## Technical recommendations

**Pinching:** Pinch the main shoot 4-6 weeks after planting. Make a hard-deep pinch to ensure a good branching and growth. Second pinch can be done for big pots size to secure a rounded plant and better flowering.

**Growth regulation:** Using the “Cool Morning” technique at the beginning of the flowering period helps to keep compact plants, improve flowering and the finish plant quality. Reduce the greenhouse temperature to 4-5°C(39-41°F) for 1- 2 hours at dawn.

Depending on the location, growing conditions, variety and pot size, etc. it may be necessary to use PGR's. The most effective PGR for P.Carnation is Paclobutrazole (Bonzi, Piccolo, etc.). The recommendations for plant growth regulators should be used only as general guideline. Growers must trial all PGR under their conditions and follow the registration uses of each chemical in their region.

**Pest and diseases:**

P. Carnation are sensitive to various pest under greenhouse conditions. Thrips, aphids, spider mites, are the most common pest. Start with clean material a well disinfected facilities together with a proper pest management program using different control strategies: exclusion, monitoring, biological and chemical control, are the best tools to control these pests.

P. Carnation are also sensitive to some diseases like Alternaria and Rust. Disease management should be addressed by sanitation strategies, proper environmental conditions, biological and chemical control. For the chemical control, follow the registration uses of each product in each region.

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## Crop schedule \* 10,5 cm pot

Purple Weddings, Peach Party, Pillow, Diantica			Peach Party (1), Purple Weddings (1). Diantica (2), Pillow (2)		
North-Central EU			South EU *		
Potting week	Indoor	Outdoor	Potting week	Finish week (1)	Finish week (2)
1-5	19-20		1-5	15-18	14-17
6-8	20		6-8	18	17
9	21		9	19	18
10	21		10	20	19
11	22		11	21	20
12	22	24	12	21	20
13	23	24	13	22	21
14	23	25	14	22	21
15	24	25	35-36	3-5	
16	25	26	37-38	6-8	
17	25	26	39-40	8-9	
18	26	27	43-44	8-10	7-9
19	27	27	45-46	10-11	9-10
20	28	28	47-48	11-12	10-11
21	29	28	49-50	12-13	11-12
22	30	29	51-50	13-14	12-13
23	31	30			
24	32	31			
25	34-35	32			
26	35-36	33			
27	37-38	34			
28	39-41	36			
29	42-45	37			
30	44-47	39			
31	46-49	41			
32		43			
33		46			
40	14				
41-43	15	20			
44-48	16-17	21			
49-52	18-19				

\*South EU growing conditions under cold plastic greenhouse or tunnel. Schedule start from RC.

This is a reference time schedule that can vary depending on the growing conditions and region. North-central EU potting from week 40 to 8 under 11-12°C de crop can be 1-2 weeks faster.

**NOTE:** Growers should use the information presented here as guidelines only. Selecta One recommends that growers conduct a trial of products under their own conditions. Crop times will vary depending on the climate, location, time of year, and greenhouse environmental conditions. It is the responsibility of the grower to read and follow all the current label directions relating to the products. Nothing herein shall be deemed a warranty or guaranty by Selecta One of any products listed herein