



**RoyalVanZanten**

## *Cultivating Multiflora*

### **General information**

Multiflora (Cushion or Belgian Mums) is a short-day plant that can be cultivated indoors as well as outdoors. Cultivation is possible starting from week 7 for early flowering up to week 30 for late flowering.

Multifloras can be divided into 3 groups:

- Summer line                               these flower spontaneously in week 36 - 39
- Quick line                                    these flower spontaneously in week 40 - 41
- Classic line                                 these flower spontaneously in week 42 - 44

The Summer line and the Quick line are always used for spontaneous flowering. The disadvantage, however, is that both the flowering time and the desired final flower diameter and shape sometimes vary due to natural circumstances.

The Classic line is ideally suited to blacking out.

All varieties in our programme can be used outdoors, but for indoor cultivation just a few varieties can be used.

Examples of these are:

- Veria Dark®                               -       yellow
- Papiro®                                     -       white
- Tripoli's®                                 -       purple, yellow, white and red
- Remos®                                    -       pink with dark heart
- Ostra®                                     -       yellow
- Sapiro's®                                 -       bronze, red and yellow
- Libra®                                     -       white
- Midas®                                     -       red

The cultivation time depends on the desired final diameter. In order to set up a cultivation programme, it is necessary to calculate back, beginning at the desired flowering week and ending at the planting week. The reaction time is the number of days starting from the blacking out phase through to flowering phase 1 (buds show colouration). This reaction time depends on the variety and takes somewhere between 5 and 7 weeks.

### **Basic stock**

Multifloras are delivered as cuttings with and without roots.

Cuttings with roots are delivered in pressed pots, whereas cuttings without roots have already been treated with a rooting hormone.

### **Pot size**

Multifloras are potted in 14 - 19 cm pots.

Pot size 14 cm, sphere 25 - 35 cm

Pot size 17 cm, sphere 40 - 45 cm

Pot size 19 cm, sphere 50 - 55 cm

### **Rooting**

Cuttings without roots are put in a pressed or a paper pot and covered with milk-white plastic sheet that is kept loose from the cuttings. As a preventative measure, crop protection against Botrytis can be used. Rooting takes from 12 to 16 days. As soon as the cuttings have rooted, the



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plastic sheet can be removed, preferably in the evening. The Multifloras are potted on 7 to 10 days after removing the plastic sheet.

### **Potting on**

For Multifloras a standard potting compost mixture for pot chrysanthemums can be used, possibly with the addition of 10 to 25% clay. It is also possible to add 2 - 4 kg of Osmocote, or 1 - 2 kg of PG-mix per m<sup>3</sup>. Always set one plant per pot, preferably deep, even if a leaf is submerged under the potting compost. After potting the plant enough water should be added to completely soak the potting compost. This can be done by watering 3 or 4 times with intervals of half an hour.

### **Topping**

After 7 to 10 days the plants can be topped, where at least 4 to 6 leaves must be left on the plant.

### **Setting out**

For the first 3 to 4 weeks the pots can be placed against each other. The extended shoots must not touch each other otherwise the spherical shape will be lost.

The final distances are as follows:

Pot size 14 cm, sphere diameter 25 - 35 cm, number of plants 10 - 12 per m<sup>2</sup>.

Pot size 17 cm, sphere diameter 40 - 45 cm, number of plants 6 - 7 per m<sup>2</sup>.

Pot size 19 cm, sphere diameter 50 - 55 cm, number of plants 3 - 4.5 per m<sup>2</sup>.

### **Climate**

- Indoor cultivation

The heating temperature during early cultivation should be 14 - 16°C. The ventilation temperature should be 18°C with a slight increase of 6°C. The RH should not be higher than 90%.

### **Growth regulators**

Alar or Dazide are used as growth retardants. The retardant rate is strongly dependant on the chosen cultivation method. Inhibition is hardly ever necessary outdoors, but indoors growth inhibition is used more often although it remains strongly dependant on the chosen type. The last retardant treatment takes place 3 weeks before flowering. The purpose of this treatment is to prevent the flower stem growing too long. Inhibition at a later phase can cause flower discoloration.

### **Fertilising**

The first two times the plants are watered after potting on they are just given clean water. Then the first cultivation phase starts with a potassium - nitrogen ratio of 1-2 with an EC increasing to 2.0. In the second cultivation phase the potassium -nitrogen ratio should be 1 - 1 and the EC can drop back to 1.5. For this cultivation, magnesium is also an important fertiliser and it makes sense to take a sample of the fertilising during the cultivation period.



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Target values in mmol for fertilising Multifloras are:

EC	PH	NH4	K	Na	Ca	Mg	NO3	Cl
1.0	5.8	<0.1	3.8	<1.0	2.1	0.9	6.0	<1.0

SO4	HCO3	P	Fe	Mn	Zn	B	Cu	
1.0	0.5	0.5	8.0	2.0	2.0	15	0.7	

### **Lighting**

When cultivating early, the plants are set before 25 April and artificial lighting is necessary.

This can be done using cyclical lighting with 6 minutes of lighting per half hour and 15 Watts per m<sup>2</sup>. Lighting is started 3 hours after darkness and can be stopped 3 hours before it becomes light again.

### **Blacking out**

Normally, blacking out takes place between 15 April and 5 September, if necessary. It is done for 13 hours a day, e.g. from 18.00 hours to 07.00 hours. If there is a longer period of high temperatures, above 28°C underneath the sheet, it is sensible to start the blacking out at a later time, e.g. from 19.30 hours to 8.30 hours.

### **Crop protection**

With Multifloras we should, amongst others, pay attention to the following diseases and pests:

Thrips, aphids, leaf miners and, to a lesser extent, white flies and caterpillars.

Furthermore, preventive spraying against white rust is a must.

Consult your cultivation advisor or supplier for the right choice of pesticides. Place flypapers above the plants in order to get an impression of the degree of infestation.

### **Sales**

Since transportation costs are high, more and more plants are being sold in covers the last few years. To do this, the plants should be dry before they're packed in covers. Ensure that the pot is moist enough for delivery.

### **Conclusion**

The Multifloras are characterised by their excellent controllability during cultivation and the appreciation shown for them by consumers.

Royal Van Zanten wishes you every success with the cultivation of Multifloras.

This description of cultivation methods is intended for information only. Royal Van Zanten cannot be held liable for any errors (or mistakes) arising from said advice.

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HL/GV 08-04-04