



CULTURE ADVICE LARGE FRINGED FLOWERS: CURLY® & FRIOLA®



Morel's genetic range of large flowers is varied and suitable for different sales periods: it includes moderate-growth ranges such as Latinia® SUCCESS® or Halios® HD (which flower in summer and autumn) up to more voluminous ranges such as **CURLY® & FRIOLA® (which flower in autumn and winter).**

For some growers, it can be difficult to manage the growth of CURLY® & FRIOLA® during the hottest periods of the year.

This factsheet contains advice on how to ensure the most effective growth and produce plants of the highest quality.

> When should CURLY® & FRIOLA® be planted and when will they flower?

With their generous growth, CURLY® & FRIOLA® flower more easily and abundantly when the climate and horticultural equipment used can guarantee average daily temperatures (ADT*) of **≤ 15°C**.

If temperatures are higher, the plant keeps on growing and that affects the flowering.

So by growing these varieties during the winter, you can save on heating!

Earliness - appearance of first 3-5 flowers: 35 and 37 weeks after sowing or 20 and 22 weeks after transplanting a 15-week-old plug.

To **schedule** your programs :

- Depending on your growing conditions, identify the weeks when you can guarantee optimum temperatures.
- Decide when you want the plants to flower and subtract the number of weeks required after the sowing or potting stage.

> What is the best pot size?

CURLY® & FRIOLA® are ideally suited to pots measuring between **14 cm** and a **22 cm** extra-large size.

For extra-large sizes, allow an extra 3 to 5 weeks' growing time and remove the first flowers once or twice.



Cultivation data for CURLY® & FRIOLA®

VARIETIES	POT SIZE Ø (cm)	GROWING TIME (in weeks)		ADT (Average Daily Temperature) and growth stage					
		From seed	From 35~40 mm plug	SUMMER		AUTUMN		WINTER	
				Growth stage > 25°C	Flowering stage 20°~25°C	Growth stage 20°~25°C	Flowering stage 15°~20°C	Growth stage 15°~20°C	Flowering stage 15°~20°C
FRIOLA®	14	36 ~ 38	20	*		*		***	***
	17(I)	39 ~ 41	23	*		*		***	***
	22(I)	42 ~ 44	26	*		*		***	***
CURLY®	14	35 ~ 37	20	*		**	**	***	***
	17(I)	38 ~ 40	23	*		**		***	***
	22(I)	40 ~ 42	26	*		**		***	***

*** most favourable
** moderately difficult
* challenging

(I) Removal of flowers recommended



> How should they be grown ?

Like Morel's other varieties, CURLY® & FRIOLA® need time to establish correctly their roots after potting.

As they are naturally voluminous, different strategies and factors of cultivation can be used to manage their growth.

This involves **stressing** the plants, but with **moderation!**

> Light & temperature

If your climate and equipment allow it, your first priority should be to lower the average temperatures (ADT of 18-20°C) during the rooting and growth phase during the summer.

When temperatures are lower, CURLY® & FRIOLA® can tolerate both higher light levels (450 W/m² – 40,000 Lux) and moderate water stress if the formulation of the growing medium and the irrigation controller are suitable.

In hot climates, when the rooting stage occurs in temperatures averaging ≥ 25°C, it is vital to control the shade (300~350 W/m² – 25~30,000 Lux) and reduce water demand. This will allow you to protect the roots and control growth.

We strongly recommend the use of a shading device which creates **diffused light**.

> Irrigation & growing medium

In hot regions, with properly shaded crop, we recommend to fractionate the watering for CURLY® & FRIOLA®, as regularly as it is necessary for the plant's size and its stage of development.

The most effective irrigation options are low-volume irrigation systems such as drippers or thin mats.

Some formulations of growing media allow moderate water stress. These formulations normally contain a small percentage of clay or frozen black peat to stop the root hairs from drying out.

> Fertilisation

During the rooting phase after potting, it is advisable to use a basic charge (which suppliers can add to the order) for most growing media. Recommended doses are 0.75 kg per m³ for a 14-cm pot and 1 kg per m³ for pots measuring 17 cm or more.

We use doses of N-NO₃ in ppm (mg/L) to measure out the fertiliser after the rooting stage, in the proportions **1/0.5/3**.

Morel ranges such as Latinia® SUCCESS® or Halios® HD need doses between 75 and 100 ppm at 18-20°C. In comparison, the more voluminous CURLY® & FRIOLA® need doses with less N-NO₃ ppm, that is up to 25% less (**50 to 75 ppm**) depending on the growing conditions.

> Growth regulators

In countries where it is approved for use, **Propiconazole** can act also as an effective **growth regulator** for CURLY® & FRIOLA®. It is best to treat plants during the growth phase and avoid the rooting and flowering phases.

Two or three treatments may be needed at doses between 50 ppm and 100 ppm.

The doses, number of treatments and the period of application should be adapted to suit the concentration of the commercial product and the growth stage. Average temperatures should be kept between 18° and 20°C.

Trial conducted in the Netherlands, November 2016.



CURLY® untreated

CURLY® treated twice with Propiconazole

> Tolerance to botrytis

We emphasise that CURLY® & FRIOLA® have **excellent resistance** to botrytis, which they owe to the thickness of their leaf and floral tissues.

At the beginning of our factsheet, we insisted on their full capacity to flower in low temperatures.

This resistance to botrytis can be observed during particularly cold weather, which usually involves condensation and humidity.