If we aim to move the plants in the vegetative direction, this value can be lowered, approximating the 6%.

If the aim is to move the plants in the generative direction, the targeted value of the difference should be higher, close to 12%.

**Low-Control Environments**

A remarkable fluctuation in temperature over day and night times often occurs in growing facilities where plant temperature and humidity cannot be precisely controlled, especially during sunny periods. This is already a stressful situation for the plants, which provides them with a generative character. Therefore, in such a low-control environment the fluctuation between the target values should possibly be kept low, between 2%-4%. However, here there is a strong emphasis on accurate measurement as plant management can already be affected by a difference as little as 0.5%.

In case of cloudy weather the difference in temperature will not be that significant. In such cases the higher value needs to be approximated.

**Day / Night Fluctuations**

As plants are exposed to different environmental effects day by day, their nighttime water uptake can also differ excessively, making the time-based start of irrigation highly hazardous. The alarm function on a computer control system such as Trutina can assist this situation.

Growers can set the value of the day / night difference as a percentage, and at which point to start the irrigation.

When the water content of the growing medium reaches or exceeds this value the computer sends an alarm message, providing the ideal timing for the start of our first irrigation.

Now that time is set for the first irrigation of the day, the next question is about aligning the moisture content to be the same as the maximum yesterday.

An increased dose of water is usually chosen in order to reach the daily maximum water content quickly.

Thirdly, the irrigation strategy should aim for only a 1 - 3 % fluctuation in the moisture content of the growing medium between waterings. This is where you measure and consider your drain water and run off.

**Optimal values may differ in both directions depending on your geographical and climatic conditions, and the current state of the plant.**

Care needs to be taken in the dosage rate as well as the times in between irrigation, as both play a role in overall moisture content.

A computer alarm can be set to signal the values outside the given range, so you can appropriately respond to changes in circumstances.

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**Trutina**

Plant weight measurement system

To improve your irrigation strategy.

**Advantages**

Unique drain calculation
Possibility to identify plant stress
Timeline with hourly, daily or monthly view
24/7 insights thanks to cloud driven data

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