



**CHERRY (PRODUCTION)  
IN FULL BLOSSOM  
THANKS TO  
GREMON'S SMART  
MONITORING  
SYSTEM**



## Have you ever thought that

cherries can be produced in a greenhouse environment? This Hungarian greenhouse proves it's possible - with the right equipment and technology. We have visited them to learn how they are going to achieve their highest yield in 2023.



## Cherry in a greenhouse?

Though mostly tomatoes, peppers and other vegetables are produced in greenhouses, cherry is a real exception - not just in the grower's country (Hungary), but also on a worldwide level. It's a hydroculture production, meaning that the fruit is produced without classic soil. The trees are growing in special pots that include a growing medium, and instead of water irrigation, the cherries get a nutrient solution to take up all the necessary nutrients in each of their phenophases.



## Crucial challenges to solve

When Béla Triszinszki, the owner of the 60 ha farm decided to start cherry production 3 years ago, it quickly became obvious that hydroponic cherry cultivation holds several challenges. To ensure a steady and efficient production, these crucial challenges must be addressed – just to mention a few:



- Cherry shows a much quicker growth than in regular soil, resulting in a higher need of water and nutrient solution
- Achieving the balance and controlling the vegetative / generative growing is very sensitive in case of cherry
- Cherry is sensitive to underirrigation and overirrigation. It must be avoided, but it is challenging to define the right amounts.

It has quickly become clear that cherries require a precise monitoring system that lets the operator constantly be aware how the trees react to irrigation, so the irrigation strategy can be adjusted to the current needs.

## Behind the success: a smart monitoring system

The right recommendation came at the right time: the owner met András Újszászi, the CTO of Gremon Systems. This Hungarian company develops a special monitoring system for greenhouses that contribute to higher yields and less costs – it's maybe less heard of, but this innovative technology has already been sold and used worldwide.



Give it a try – the owner thought, and decided to start a trial project with Trutina, Gremon Systems' smart monitoring system. The basics of the solution is a weight measurement system that gathers data frequently (every 5 secs!) and uploads it to a smart dashboard where the operator can easily see what is happening with their plants. Besides weight, EC, light and other sensors are also integrated and can be used plug&play with the system. The automatic measurements offer remote operation as well, simplifying the daily routine in the greenhouse.

## **The key is continuous cooperation**

Having so much data available of the plants offered a clear view of what should be improved in the growing strategy. However, to fine-tune the daily operation, the data has to be constantly analyzed. This is why András from Gremon Systems became a frequent visitor at the greenhouse, helping Béla to fine-tune the system and analyze the invaluable data it provides. Thanks to the constant cooperation, education and consultation, they managed to create a setup that is fine-tuned for cherry growing.

## **The blossoming result**

Today, thanks to the smart monitoring system, the farm is able to define

- The right time
- And the right amounts of irrigation.

As a “side effect”, there is no more waste at this greenhouse: by knowing the exact needs of their plants, they can save a lot on irrigation and nutrient solution.



## MORE ABOUT TRUTINA

At the moment, more than 600 Trutina systems are running all over the world - the first installations were mostly used for tomatoes, peppers, cucumbers and other vegetables. Recently, Gremon Systems has been expanding its product line with special fruit-specific platforms, including Trutina Blueberry, Trutina Strawberry and more - to specialize their know-how for the challenges of each production type.

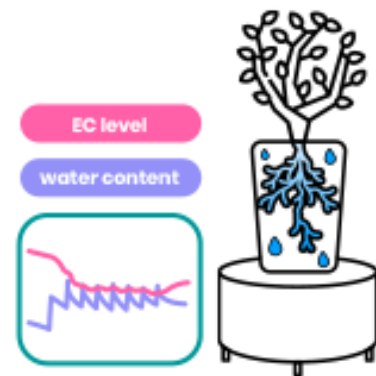
In general, this type of data analytics system can be used to overcome common problems in a greenhouse. The chart below shows those issues that growers usually experience - and their possible solutions thanks to the Trutina system:

### YOUR GOALS

Trutina Blueberry is an all-in-one solution, helping you...

#### I'd like my plants to develop healthier roots.

Monitor water content and EC level more accurately, creating better conditions for healthy root development.



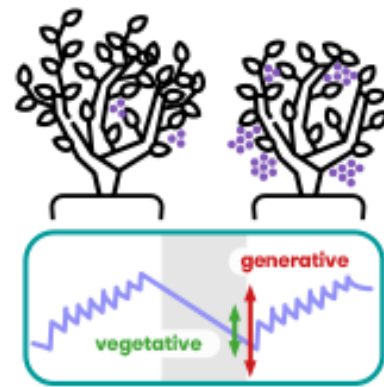
#### I'd like to have higher and better quality yield (less cracking fruits, etc.).

Irrigate only when the plant needs it (when there is enough light, the temperature is high enough and the plant is able to take up the irrigation).



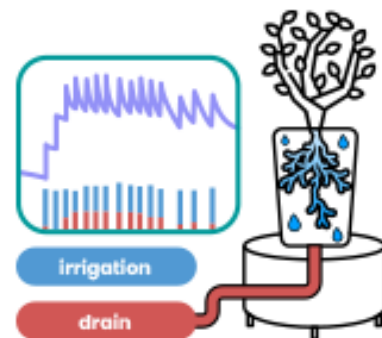
### **I'd like to maintain a better plant balance (vegetative / generative).**

Control your plants more efficiently between vegetative and generative growing according to the daily changes of water capacity.



### **I'd like to reduce my operating costs.**

Monitor your drain and irrigation strategy better at each watering cycle.



### **I'd like to verify whether my irrigation strategy is goodenough.**

Get real-time feedback on how your plants react after changing your settings - thanks to monitoring plant activity values (water uptake speed, evaporation, and more). Without instant feedback, it turns out only when it's too late.



**Contact us here:** <https://gremonsystems.com/contact-us/>

Our platform presented in the case study is the Trutina Blueberry Professional Edition, which can be used in any culture where plants are grown in containers with precision irrigation. **Find more information about the device here:**

<https://gremonsystems.com/products/trutina/blueberry-professional-edition/>





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