

**COLASSE USES VEGELEDs TO HELP THE GEMBLoux  
AGRO-BIO TECH FACULTY OF ULG TO MODERNISE A GREENHOUSE  
AND PROVIDE NEW LIGHTING FOR FIVE GROW ROOMS**



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The Plant Science research fork of the Gembloux Agro-Bio Tech faculty of the University of Liège (ULg) has been working alongside Colasse for more than five years.

This research division comprises ten or so researchers or doctoral students who study the physiology of the roots of plants. This group, led by Pierre Delaplace has already called on Colasse's expertise for various projects, including the renovation of five old grow rooms, the modernisation of a greenhouse and replacement lighting for a grow room.

Pierre Delaplace told us about the last two projects.

## **COLASSE's added value**

- Expertise and quality of the facilities produced 'When they build something, they build it well. It's not held together with a piece of string or amateurish in any way. We are an LED user, not an LED developer. We therefore rely entirely on the studies that Colasse performs, and the equipment always meets our needs' confirmed Pierre Delaplace.
- Considerable availability and responsiveness of the team, both at the technical and the commercial level

## GREENHOUSE MODERNISATION

The Gembloux Agro-Bio Tech faculty has a greenhouse for research experiments on the multiplication of plant material. This greenhouse had been fitted with sodium HPI discharge lighting fixtures. These lighting fixtures emitted a lot of heat, had a very short life span and had a light spectrum that changed over time. The lighting fixtures were therefore not homogeneous and had a spectrum quality that varied from one point to another within the greenhouse.



### THE CHALLENGE

Within the framework of the modernisation of this greenhouse, the faculty wanted new additional horticultural lighting and launched a call to tender to accomplish the following:

- Find a more reliable electrical system
- Guarantee much longer lifespan of the lighting fixtures
- Deal with an unusual situation: an old-generation greenhouse on the one hand and an electricity supply (in the town of Gembloux) that is not always 100% reliable, hence the need for specific upstream devices



### THE SOLUTION

Pierre Delaplace met with Manuel Colasse to specify the requirements. This allowed him to provide the most detailed quote possible. The horticultural LED lighting specialist delivered a solution, placing devices upstream of the LED lights. The company provided an electricity panel with a power supply kit, 32 Vegeled LED lights and dimmer system.

### THE RESULT

"This allowed us to complete research projects for doctoral theses that needed a greater growing area than we could only find in a greenhouse," explained Pierre Delaplace. "This additional lighting also helped several research projects by multiplying the plant material of model plants. Since we control the lighting periods, we can induce the flowering of certain plants or not as we see fit."

## REPLACEMENT LIGHTING FOR AN IN VITRO GROW ROOM

This temperate grow room is where the Gembloux Agro-Bio Tech faculty cultivates plants in magenta boxes and produces hydroponic crops, inter alia. The neon TL tube lights in the grow room emit a lot of heat. The research team even lost some collections of plants following a malfunction in the cooling system when the lights kept on working. The plants were subjected to major thermal stress (heat). The relatively short life span of the lighting fixtures was also a problem. The neon lights that no longer worked were replaced. That meant that neither the light spectrum nor the amount of light produced were constant.

### THE CHALLENGE

- Provide homogeneous lighting for the grow area without any undesirable local effects
- Replace the neon tubes with lighting fixtures that last longer
- Avoid loss of crops

### THE SOLUTION

After an in-depth study of the situation, Colasse installed 130 x 86cm rigid Vegeled LED bars. The company also provided the variable lighting control system.

### THE RESULT

"We haven't lost any collections since the new fixtures were installed", confirmed Pierre Delaplace. With the new system, the lighting turns off completely if the cooling system malfunctions. What is more, we've not seen any problems associated with heterogeneity or plant growth. This has greatly contributed to two research projects that we performed with manufacturers." Projects for doctoral theses are also conducted in this grow room.



For more information: <https://www.colasse.be>



**Creator of innovative lighting solutions**

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