

Care & Platform

PHYTOSYSTEMS FACILITIES

PhytoSYSTEMS Facilities manages the equipment and infrastructure to support research on plants and microalgae, from their culture to physiological and molecular analyzes.

FACULTY OF SCIENCES

The Faculty of Sciences works on three different missions : teaching, research and citizenship.

The teaching and the research of the Faculty of Sciences are multidisciplinary and interdisciplinary. It is also based on specialist and passionate teachers and researchers.

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Care and Platform PhytoSYSTEMS Facilities

The Research and Teaching Support Units (CARE) play a key role in the partnerships the Université de Liège has been developing with companies. They support a growing number of private organizations which can thus benefit from their expertise and specialized facilities. The platform/CARE presented below can closely and efficiently collaborate with industry in the framework of R&D projects.

PRESENTATION

PhytoSYSTEMS Facilities provides research and teaching support in a wide range of plant biology domains

The growing facilities include a collection of high performance growth rooms (Convicon, CLF Plant Climatics) dedicated to agro- and eco-physiological studies, where plants, from the small laboratory species *Arabidopsis* to crops such as maize or tomato, are submitted to highly controlled artificial climates (temperature, humidity, light intensity and photoperiod, CO₂ level).

For larger scale or routine culture, the plant growing facilities also include other growth rooms and greenhouses where environmental parameters are under less stringent control.

We also have a long experience in the culture and biotechnological applications of microalgae. Our infrastructure includes equipment for their cultivation and analysis ranging from low-volume/high-control multi-cultivator to a 4000L outdoor mass cultivation ramp.

PhytoSYSTEMS Facilities is part of the Research Unit “Integrative Biological Sciences” (UR InBioS) and benefits from the large expertise of its members, particularly in genetics, genomics, physiology, molecular biology, genetic engineering, biotechnology, cell imaging and bioinformatics. Thus, not only does PhytoSYSTEMS Facilities offer access to its plant cultivation equipment and management, but can also rely on these internal expertise to offer high added value services in the context of experimental plant sciences.

MAIN STRENGTHS

Highly controlled Plant Growth chambers

- 10 Walk-in chambers from Convicon (~40m²)
- 2 low-temp Reach-in chambers
- 10 flexible Reach-in Grobanks from CLF Plant Climatics (30 independently controlled 1,3m² culture area)
- Fluorescent light or spectrum modulable LED lighting

Controlled Growth room

- 18 Walk-in (~ 240m²)
- 2 Growth chambers with airlocks for phytopathology applications

Greenhouse

- 180 m² which a third is climate-controlled

Semi-automated phenotyping station

- A high-throughput imaging and analysis platform adapted to a wide variety of plant species ranging from small rosette plants to crops.

