



Microphyt: upcycling and recycling at the heart of its sustainability commitment

Baillargues, France – November 21, 2024 - Microphyt, a key player in natural microalgae-based ingredient production, is reinforcing its environmental commitment through concrete upcycling and recycling initiatives. The company believes that innovation should not only drive its products but also its resource management practices to minimize its environmental footprint.

Upcycling: transforming by-products for a sustainable future

Microphyt takes a proactive approach to upcycling, continuously seeking ways to maximize product value and minimize waste. A prime example is the development of PhycoSi, an innovative ingredient created from a production by-product. By rethinking how bioactive-rich paste from filtration—initially considered waste—can be repurposed, Microphyt's R&D team transformed it into a bioactive ingredient containing bioavailable marine silicon with clinically proven benefits. PhycoSi represents Microphyt's commitment to harnessing the natural potential of microalgae for sustainable solutions while reducing waste. This initiative aligns with the principles of the circular economy.



Recycling: giving resources a second life

Recycling is central to Microphyt's eco-friendly strategy, with sustainable resource management embedded throughout its production process:

- **Water Management:** In its greenhouses housing photobioreactors, cooling water is recycled in a closed-loop system. Vaporized water used for temperature control is collected, filtered, and reintroduced, saving tens of cubic meters of water every day.
- **Culture Medium Recycling:** Microalgae are cultivated in a specially designed aqueous medium. During harvest, ultrafiltration separates the microalgae from the medium, allowing the clean medium to be reused for future cultures. By 2025, Microphyt aims to recycle 50% of its culture medium.
- **Green Solvent Recovery:** Only eco-friendly solvents such as water and ethanol are used in Microphyt's extraction processes. These solvents are evaporated, condensed, and reused in a closed loop.
- **CO₂ recycling:** Microphyt works with a company to recover CO₂ from industrial processes, which is purified to meet quality criteria for use in its photobioreactors. Through photosynthesis, microalgae absorb the CO₂ and release oxygen, creating a cleaner and more sustainable production process.

- Packaging Reuse: Pallets and boxes used in operations are collected and resold for reuse, significantly reducing waste and promoting responsible resource management.

FSSC 22000 version 6 certification: enhanced standards for sustainability

This year, Microphyt achieved FSSC 22000 Version 6 certification, underscoring its dedication to sustainable practices. The company has integrated waste sorting and processing into its operational workflows, standardizing these procedures across teams. By the end of the year, all employees will be trained to uphold these practices, ensuring even more rigorous and responsible resource management.

Building a sustainable future with Microphyt

These initiatives align with Microphyt's vision to leverage biotechnology for innovative, sustainable microalgae-based ingredients while reducing its environmental impact. By incorporating photosynthesis into its photobioreactors, Microphyt uses unlimited resources. Like plants, the microalgae absorb CO₂ and release oxygen, purifying the air and promoting a healthier environment.

To further its sustainability efforts, Microphyt has installed 690 solar panels on its facility roof, covering part of the site's electricity needs. The remaining energy comes from a 100% green electricity contract. These actions strengthen Microphyt's commitment to industrial ecology and circular resource use, demonstrating its dedication to reducing its environmental footprint while unlocking the unique potential of microalgae for a sustainable future.

For more information about Microphyt and its sustainability initiatives, visit www.microphyt.eu

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