

# Large-scale cultivation of microalgae can clean emissions from industry, can also be used in Nordic climate

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Microalgae can recover greenhouse gases and nutrients from industrial waste. This technology can be used to reduce climate footprint and

eutrophication. Lina Mattsson's dissertation in ecology shows that microalgae can also be used in the Nordic climate, which has previously been considered a challenge as the algae are dependent on heat and sunlight.

The technology, which Linnaeus University's research group Algoland has worked with for a long time, involves leading emissions into cultivation containers, so-called photobioreactors, containing [microalgae](#). Through photosynthesis, the algae can recover substances like [carbon dioxide](#), nitrogen, and phosphorus, and transform these into valuable biomass instead of having them disperse in nature. The green algal biomass mass is valuable as it contains large quantities of proteins, carbohydrates, and lipids.

"The algal biomass can be used for products that are of benefit to society, like biofuel, feed, cosmetics, and food supplements. In this way, microalgae can contribute to solutions for a more circular society," explains Lina Mattsson, researcher in ecology.

**More information:** Microalgal solutions in Nordic conditions—industries transition toward resource recovery: [lmu-se-primo.hosted.exlibrisgr...\\_DiVA\\_org\\_lnu\\_111602](https://lmu-se-primo.hosted.exlibrisgr..._DiVA_org_lnu_111602)

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