

MARIGREEN

June, 2022

E-Newsletter N°2

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*We started producing **fish cake** from fish wastes to be used as **fertilizer!***

Fish cake

The MARIGREEN project aims at valorizing residual materials from the BLUE sector. During the last weeks the Danish partners **Alumichem** and **DTU Aqua** collected a sludge sample from Mønsted-Bryrup organic trout farming production with the aim to develop an innovative lignocellulosic filtration system. A so-called *fish cake* was produced and sent for further analysis to **University of Agronomic Sciences and Veterinary Medicine (USAMV)** and **Aristotle University of Thessaloniki (AUTH)**.

Preliminary laboratory filtration tests indicated that the largest solid content of the cake, *i.e.*, ca. 24%, was obtained with a filter aid mix composed of 92% lignin, 4% cellulose, and 4% perlite. Consequently, this composition was used during the production of the *fish cake* sample.



Cakes were produced by filtration through paper filters (12-15 μm) + the filter aid, driven by a vacuum pump at ca. 2 bar. The total weight of the filter media was 25 g, which would filter a total of 250 g of sludge sample. As the measured dry matter content of the sample was 3.12 %, it shows an approximate 3.5:1 weight ratio of filter aid to solids in the fish sludge at this early stage.

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Organic farm

Producing organically means respecting the rules on organic farming. These rules are designed based on general and specific principles to promote environmental protection, maintain the biodiversity of Europe and build consumer trust in organic products. These regulations govern all areas of organic production and are based on a number of key principles, such as:



- prohibition of the use of GMOs;
- forbidding the use of ionising radiation;
- prohibiting the use of hormones and restricting the use of antibiotics to only when necessary for animal health.

In particular for aquaculture systems:

- strict maximum stocking densities;
- water quality requirements;
- rules that specify that biodiversity should be respected, and which do not allow the use of induced spawning by artificial hormones;
- handling minimised to avoid stress and physical damage;
- the provision that organic feeds should be used, supplemented by fish feeds derived from sustainably managed fisheries.

Source: <https://ec.europa.eu>



www.marigreen-project.eu



[www.twitter.com/MariGre04385907](https://twitter.com/MariGre04385907)



<https://www.researchgate.net/project/MARIGREEN-Sustainable-utilization-of-MARine-resources-to-foster-GREEN-plant-production-in-Europe>



www.linkedin.com/company/marigreeneu

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