

EU4Algae

a collaborative European stakeholders forum on algae

MIRO Board transcript

Meeting of WG4 at 7. October 2022

MIRO board: [LINK](#)

Studies on novel feed ingredients/additives

- 1) Erik Malta, CTAQUA. We have studies/projects on functional compounds from micro- and macroalgae as immune system stimulators in fish feeds.
- 2) Pi Nyvall, OLMIX. Active ingredients from Seaweed for immunity, Lipid metabolism, antibiotic reduction
- 3) MetteOlaf Nielsen, Aarhus University DK - Ruminant nutrition, new feed ingredients, algae for enteric methane emission, research, how to improve feed value of algae, identification of bioactive ingredients
- 4) Leen Bastiaens, VITO (Belgium) - applied research institute, producing/tailoring new (bioactive) feed ingredients at pilot scale (micro & macro algae)
- 5) Dorinde Kleinegris, NORCE: microalgae as aquafeed ingredients in various projects
- 6) Natalia Serrano Rosua, Merieux NutriSciences: Report of the expert meeting on food safety for seaweed – Current status and future perspectives
<https://www.fao.org/documents/card/en/c/cc0846en> - For the moment this is a reference document for us, as the EU regulation is not sufficiently evolved.
- 7) Ewenn Helary, NUQO: we are initiating project around methan emission reduction
- 8) Lyn PO, Livalta: Will be key to certain sources
- 9) Florence Dufreneix (CEVA)- Algae innovative and technical center
- 10) Kelp Blue - Maxime Penning. No studies yet. Growing seaweed at scale off-shore. We have a pulp rich in proteins, minerals + fatty acids. Waiting for grant approval to study new protein extraction methods with Wageningen University. Arsenic biggest problem probably.
- 11) Stefan Schmid (Viride GmbH) Large scale micro algae production; open for field experiments; currently Dunaliella & Nannochloropsis.
- 12) Katharine Dennis. No studies but interested in area

Industrial symbiosis projects/studies

- 1) Luc Steenwelle, Corbion: collaboration with sugar refinery to come to sustainable setup for heterotrophic micro-algae

- 2) Lyn Probert-Ottewell. Livalta. Pilot plant using CO2 from industry
- 3) Liina Joller-Vahter (Power Algae), using industrial CO2 and nutrients from waste streams
- 4) Katharine Dennis, Livalta. Algae pilot plant using CO2
- 5) Jan Wilco Dijkstra, TNO. Techno-economics of seaweed/algae cultivation and biorefinery. Symbiosis of biorefinery with feed/food.
- 6) VITO: evaluating option to link algae production to side-streams (re-use of water, N/P, CO2 heat, ...)
- 7) Dorinde Kleinegris, NORCE. interested in this area

LCA Studies

- 1) Stefan Kraan, The Seaweed Company. working on several LCA algae Poultry etc
- 2) Liina Joller-Vahter (Power Algae) . Circularity and LCA of microalgae value chain
- 3) Luc Steenwelle, Corbion: we have done an LCA study with our micro-algae product, AlgaPrime DHA, compared to Fish oil

Understanding feed legislation

- 1) Lyn Probert-Ottewell. Feed industry legislation
- 2) Florence Dufreneix (CEVA) - Algae innovative and technical center
- 3) Katharine Dennis, Livalta: Link to feed assurance schemes
- 4) Erik Malta, CTAQUA. Spanish project on legislation, harvesting, cultivation, ingredients, Nagoya etc.

Regulation on heavy metals - projects/studies

- 1) Pi Nyvall Qualitalg Project on toxicity of seaweed products and specifically arseno sugars
- 2) Stefan Part of CEN and regulations re algae feed
- 3) In the A2F project, there are some results on heavy metals in microalgae for aquafeed. (funded by RCN). Dorinde Kleinegris
- 4) we noticed high concentrations of arsenic in our wild harvested seaweed

Other science to policy

- 1) Stefan Schmid (Viride GmbH) Large scale micro algae production; open for field experiments; currently Dunaliella & Nannochloropsis. www.viride.net
- 2) Marine Spatial Planning: Stein Arne Rånes