

**Topic/Title (Norwegian)**

**Undersøke muligheter for å redusere næringsutslipp av Atl. laks i åpne merder med forskjellige diettformuleringer**

**Topic/Title (English)**

**Investigating possibilities to reduce Nutrient Discharge of Atl. salmon in open Sea Pens by different diet formulations**

**Picture**



**Summary**

Accumulation of faeces under salmon pens is often a reason to curtail the expansion of net-based production of farmed fish. Additionally, enclosed and semi-enclosed farming systems will have to remove fish faeces from the production facility. This incurs additional cost with fish waste from saltwater systems requiring more processing than manure from terrestrial animals before it can be used as a terrestrial fertiliser. Furthermore, given that it requires as much effort and resource to manufacture and distribute the portion of the feed that generates faeces as it does to supply the productive part of the feed, maximisation of the dry matter digestibility of salmon feeds makes a lot of sense.

Main objective of the study would be to investigate feeds with an greater nutrient density by further suppressing the inclusion of non-starch polysaccharides and ash in the feeds. The effect will be minimisation of feed conversion ratio by maximisation of the dry matter digestibility of the feeds.

The study will be conducted at MOWI's trial unit at Averøy. For this study 4 different diets will be formulated and fed in quadruplicates to Atl. Salmon in open 5x5 m sea caged from approximately 1500 to 4500 g. Study will start in December 2022 and is planned to finish in June 2023.



Bachelor or Master thesis BIOVIT 2022/23

**Subject area**

Growth performance, feed conversion, feed utilization, nutrient discharge, nutrient retention, sustainability, economic

**Language thesis** (Norwegian and/or English)

Norwegian or English. English preferred

**Bachelor or Master thesis**

Master

**Credits**

60

**Project/company**

MOWI Feed in cooperation with Nofima

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