

Topic/Title

Egenskaper med høy gjennomstrømming av fenotyper ved bruk av Raman -spektroskopi og maskinlæring i laks

Topic/Title

High throughput phenotyping quality traits using Raman spectroscopy and machine learning in Atlantic salmon



Summary

Rapid and high throughput methods of determining lipid and pigment traits in Salmon production are in high demand. In this project 600+ Atlantic salmon have been recorded using Raman spectroscopy and laboratory reference methods for lipid and pigment traits. The candidate will get the opportunity to investigate and evaluate machine learning and conventional statistical models for using Raman shift to determine quality traits. The best short listed phenotypes can be evaluated for their genetic potential in breeding programmes of Atlantic salmon in Norway. Programming skills and knowledge of statistics are needed. Field work opportunities can be organized if the candidate wants to acquire laboratory and field experience.

Subject area

Phenomics, Machine Learning, Raman Spectroscopy, Fat and Pigment, Quantitative genetics

Language thesis

English

Bachelor or Master thesis

Master thesis

Credits

30 or 60 credits depending on top candidates needs

Project/company

Collaboration between NOFIMA and NMBU.

Please contact

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