Bachelor or Master thesis BIOVIT 2022/23

Norsk tittel: Dyrkingspotensial for frøvekster til mat i Norge for å øke egen produksjon av planteprotein

English title: Cultivation potential in Norway of seed crops for food to increase local production of plant protein


***Photos(l-r)**: Field bean trial field and field bean at flowering stage (Anne Kjersti Uhlen)*

Summary:

This thesis work will be connected to the ongoing project: “Insentiver til Virkemidler for Omstilling av Matsystemet / Incentives for Measures for Food system Transition (VOM).

Important key questions in this project:
Which geophysical opportunities exist for plant production in Norway using different production methods? To what extent is it possible to grow crops on land currently used for grass production?

This is a 2-part thesis investigating cultivation potential of seed crops for food in Norway. It is also possible to split the assignment into 2 theses:

Part 1: Identify temperature- and other climate demands for selected seed crops and identify regions and areas in Norway with potential for cultivation of seed crops. Find available, potential cultivars (e.g., on the European market). Evaluate how these crops may be utilized as food and what quality demands they must meet. Evaluate economic potential and environmental sustainability of the production.

Part 2: A barrier for many seed crops is that their climate demands result in a long developmental period and too late maturation in many Norwegian regions. Study use of agryl row covers as a climate regulation measure for selected protein crops in field trials. Examples of crops that may be possible to investigate: faba bean, lupin, chickpea or vegetable soybean.
Field trials will take place at Vollebekk forsøksgård and possibly in cooperation with commercial producers that may provide polytunnels for trials. Cultivation until seed

maturity followed by harvest and assessment of plant development, harvest indices and crop quality factors. Study effect of climate regulation measure.

Subject area future plant production systems/products, growth analysis, climate, quality
Language thesis Norwegian and/or English
Master thesis
Credits: 30 or 60 credits
Project/company: VOM (CICERO)
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