

Bachelor or Master thesis BIOVIT 2023/24



Topic (Norwegian):

Studier av ny genetisk diversitet i havre

Topic (English):

Studies of new genetic diversity in oats



Summary

Oat is an important grain crop in Norway with unique health-promoting characteristics used both for food and animal feed. There is great interest in the Norwegian food industry to increase the use of oats in new food products. Greater diversity in protein content, oil and beta-glucan is desired for this, along with good adaptation to the challenging climate conditions in Norway.

The genetic variation in Nordic oat cultivars is low, but we have access to a recurrent selection population developed in collaboration with Iowa State University with introduced genetic diversity from wild oats, *Avena sterilis*, and experimental lines with elevated protein, oil and beta-glucan content. In this MSc thesis project, you will be involved in testing these materials in field trials and performing genetic analyses by use of SNP genotyping data.

There is also a possibility for a summer job as a part of this thesis!

Subject area (keywords): genetics, agronomy, oats, genome-wide association study

Language thesis: English

Bachelor or Master thesis: Master thesis

Credits: 60 ECTS

Project/company:

DiversityOats (NFR 344156): A more sustainable Norwegian oat industry by increased genetic diversity and diversified food products

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