

Topic (Norwegian):

**Funksjonell karakterisering av et viktig vannmetningstoleranse-QTL i vårhvete**

Topic (English):

**Functional characterization of an important waterlogging tolerance QTL in spring wheat**



### Summary

Through genome-wide association mapping (GWAS) we have recently identified an important QTL for waterlogging tolerance on chromosome 6A in Norwegian spring wheat. This QTL is mapped to the same genomic area as a major QTL for root angle in other studies. We hypothesize that our waterlogging QTL could be associated with root angle, but that has not been tested. A mapping population is currently being developed for mapping and validation of the waterlogging QTL.

We are looking for a student to do follow-up waterlogging experiments with selected cultivars and breeding lines both in the field and under controlled greenhouse conditions. More specifically, this will involve 1) testing for root angle using pot experiments, 2) evaluation of waterlogging tolerance in the field, 3) mapping and validation of the QTL in the newly developed mapping population

**Subject area** (keywords): genetics, abiotic stress, genomics, QTL mapping

**Language thesis:** English

**Bachelor or Master thesis:** Master thesis

**Credits:** 60 ECTS

**Project/company:** This thesis topic is not linked to any specific research project, but finding will be provided from ongoing project activities on wheat genetics.

### Please contact

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