

Bachelor or Master thesis BIOVIT 2021/22

Topic (Norwegian):

**Evaluering av tørketoleranse i utvalgte hvetesorter under kontrollerte betingelser i polytunell**

Topic (English):

**Evaluation of drought tolerance in selected wheat cultivars under controlled polytunnel conditions**



### Summary

Newly established polytunnels at Vollebekk enable the control of rainfall and temperature in field trials. In this master thesis topic we will use the tunnels to conduct a pilot experiment with 16 spring wheat cultivars that will be grown under two irrigation regimes: drought stressed and well-watered. Two tunnels will be used, one aimed at ambient growing temperature and the other with 5°C elevated temperature. Thus it will be possible to evaluate both the effect of drought stress and temperature on the growth performance and yield of the wheat cultivars.

More specifically, the student will be involved in: 1) assessing the growth and development of the plants during the experiments, 2) plant physiological measurements on the plants to assess how they cope with the drought stress, 3) analysis of yield components and final grain yield.

**Subject area** (keywords): genetics, abiotic stress, drought, elevated temperature

**Language thesis:** English

**Bachelor or Master thesis:** Master thesis

**Credits:** 60 ECTS

**Project/company:** NOBALwheat (Baltic Research Program): Breeding toolbox for sustainable food system of the NOrdic BALtic region

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