

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 drought stress experiment with spring wheat cultivars and breeding lines 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 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 can be involved, depending on the focus of the thesis, 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, 4) image capture during field season and 5) image processing.

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

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

Language thesis: English

Bachelor or Master thesis: Master thesis

Credits: 60 ECTS

Please contact

Morten Lillemo, IPV morten.lillemo@nmbu.no

Tomasz Mróz, IPV tomasz.mroz@nmbu.no