

Topic/Title (Norwegian)

Genetisk bakgrunn av multispektral refleksjon i vårhvete basert på dronebilder

Topic/Title (English)

Genetic background of spring wheat canopy multispectral reflectance captured by drone imagery



Summary

High-resolution multispectral imagery of vegetation captured by drones carries a lot of information about plant performance, response of genotypes to the environment and canopy parameters. However, little is known on how do those parameters link to the genetics and whether they share something with the actual agronomical data. We plan to conduct a genetic association study of multispectral traits using our field trials and accumulated agronomical and genotype data. The student will be involved in drone data collection and processing during the season and statistical association analysis afterwards. There's also a possibility for a summer job as a part of this thesis!

Subject area (keywords): Spring wheat, grain yield, earliness, UAVs, multispectral reflectance, GWAS

Language thesis: English

Bachelor or Master thesis: Master thesis

Credits: 60 ECTS

Project/company

PhenoCrop (NFR 320090) - Phenotyping for healthier and more productive wheat crops

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

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