

Suggested topics for student theses

Bachelor's, Master's and PhD

NordGen Plants

- A. Test of cereal CWR for %inbreeding vs. %out-breeding. (Bachelor, Master)
- B. Pedigree improvement and analysis
- C. UPOV scoring for cultivated cereals
- D. Diversity within landraces of cereals
- E. Revitalization of old fodder plants and updating sustainable Nordic food recommendations.
- F. How much are crop wild relatives and landraces used in plant breeding? Method: interviews and literature searches.
- G. Evaluation of genetic diversity in Nordic crop wild relatives. Methods: DNA extraction, molecular marker analysis (laboratory), statistical analysis. In cooperation with Linköping University.
- H. Development/optimisation of germination protocols of crop wild relatives. Method: literature review, practical work in NordGens seed laboratory.
- I. Characterization and evaluation NordGen's Nordic flax.
- J. Creating crop traits for flax in GENBIS and uploading C&E data.
- K. Development/optimisation of germination protocols of selected medicinal species. Literature review and practical work in NordGen's seed laboratory (Bachelor, Master).
- L. Characterization and evaluation of a selection of ornamental accessions in NordGens's collection. Can include choice of traits, scoring in field trial, creating crop traits in GENBIS and uploading data depending on level of study (bachelor, master).
- M. Characterization and evaluation of a selection of medicinal accessions in NordGens's collection. Can include choice of traits, scoring in field trial, creating crop traits in GENBIS and uploading data depending on level of study (Bachelor, Master).

NordGen Farm Animals

- N. Co-evolution of old landrace farm animals breeds and plants and their cultural-historical significance.
- O. A review of the status of native breeds [cattle/horse/goat/sheep/poultry/rabbits/pigs] in [Denmark, Iceland/Faroe Islands/Finland/Norway/Sweden] – from the breed formation to their current situation.
- P. Status of ecosystem services provided by farm animals [the subject area can be limited based on animal species, region and ecosystem in question].
- Q. Comparison of semen quality in roosters depending on method of collection. In collaboration with Luke, Finland and NIBIO, Norway.
- R. Action plan for epididymal semen collection for gene banks.
- S. Honeybee semen cryopreservation. In collaboration with Luke.
- T. Action plan for tissue sampling for gene banks.
- U. Finngoat action plan.
- V. Digitization and pedigree analysis of Northern Finncattle herdbook. (Bachelors/Masters)
- W. Analysis of whole genome sequence DNA from medieval/post-medieval Nordic native cattle bones (Masters)
- X. Analysis of WGS DNA from Nordic native horse breeds (Masters)