

TolerantTree and EVOLTREE meeting on Workshop: Novel forest tree breeding for tolerance to abiotic and biotic stress

24 -26 August 2022, Denmark

Introduction

The establishment of quasi-field trials (breeding without breeding) where genetic markers are applied to construct the pedigree in forest stands, is an option to save time and costs for the establishment of ordinary field trials. The approach also offers an opportunity to identify genetic material with high tolerance to biotic or abiotic stress in specific stands where the stress factor is present.

Genomic selections and gene-wide association studies provide opportunities for early selection and more efficient selections. Coupled with extensive phenotyping data, the application of genomics may also increase the chances to select tolerant genotypes in populations influenced by biotic or abiotic stress.

Forest policy in many countries support the use of a wider array of species for improved stability and biodiversity, and global warming also create interest for using new species. This leads to the need for seed sources of species that have previously been neglected in breeding programs. But breeding of many species and for multiple sites calls for cost effective, low input breeding approaches. A multiple population breeding strategy with seedling seed orchards can be an option targeting conservation of high diversity among gene pools while simultaneously increase genetic diversity of seed sources for species with scattered distributions. The latter by combining genetic material from small populations.

In the context of climate change, the importance of phenotyping for tolerance to abiotic and biotic stress is increasing. New assessment techniques are required, and remote sensing using unmanned aerial vehicles (UAV) can be an option to obtain a reliable phenotyping.

Aim of the workshop

The aim of the meeting is to present and discuss the experiences and issues related to novel tree breeding, breeding for minor tree species and novel phenotyping. We invite the participants to give presentations on their work and results related to the above topics.

Venue and lodging

The venue for the workshop is "Skovskolen" (<http://ign.ku.dk/om/skovskolen/>) (in Danish) in Nødebo, Northern Sealand, with address: Nødebovej 77A, 3480 Fredensborg. Twenty rooms are available and to

keep the price down students will share a room with another participant. Junior scientists and students can apply EVOLTREE for support to participation.

Invitation to oral presentations

We invite the participants to give a presentation on their work and results.

The submission of abstracts for short oral presentations is open until June 20th, 2022. Submit the abstract directly to Jon Kehlet Hansen (jkh@ign.ku.dk).

The abstracts should include (in this order): title of the presentation, name(s) of the author(s), affiliation, text (maximum 250 words) of the abstract. The abstract shall not include any figures or tables. The abstract should be submitted in MS Word format.

Registration

There is a registration fee of 470 Euro, which covers housing including all meals, coffee and tea breaks and bus for an excursion. If you share a room, the registration fee will be 430 Euro. Please register directly to Jon Kehlet Hansen (jkh@ign.ku.dk) with "TolerantTree" in the subject field. The number of participants is limited to 20 persons of which 13 are reserved for members of the TolerantTree network. Deadline is June 20th, 2022.

How to get to the venue

It is possible to reach the venue by public transportation (with train to Hillerød and bus 307 from Hillerød to Nødebo). For more details, please look at:
https://www.rejseplanen.dk/webapp/index.html?language=en_EN