

Two week intensive course

Navigating from Phenotypic Analysis to Genomic Selection in Plant Breeding

Target group:

Students, researchers, extension service, industry, NGOs, etc.

Where: Egerton University, Njoro, Kenya

When: September 23 – October 4, 2024

How to register:

<https://short.boku.ac.at/gentwork>



Your instructors:

Dr. Sebastian Michel and Dr. Barbara Steiner

Plant Breeder and Geneticists. Lecturers and researchers at the University of Natural Resources and Life Sciences Vienna.

For further information please contact:

Dr. Sebastian Michel, sebastian.michel@boku.ac.at

Dr. Mercy Wamalwa, mercy.wamalwa@egerton.ac.ke

Acknowledgment:

This course takes place in the framework of Africa Uninet project P059: Sustainable networks for using next generation quantitative genetics to modernize breeding programs in Kenya. **Gentwork - Genetics and Networks | Kenya - Austria**

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<https://africa-uninet.at>

Two week intensive course

Navigating from Phenotypic Analysis to Genomic Selection in Plant Breeding

During this lecture you will learn how to use the statistical package R for field trial analyses, genetic mapping and genomic selection

The following topics will be discussed during this two-week intensive course:

- Phenotypic analysis of multi-location field trials
- Genetic mapping and marker-assisted selection in structured and diverse population
- Application of modern mutagenesis tools, such as TILLING, for gene identification
- Implementation and evaluation of predictive breeding approaches for genetic improvements

Participants will be able to conduct phenotypic analyses of multi-location plant breeding field trials and interpreted the results. Participants will acquire the skills to implement advanced breeding strategies like genetic mapping and marker-assisted selection techniques. Participants will be familiar with the application of cutting-edge mutagenesis tools like TILLING for precise gene identification, and the implementation of predictive breeding approaches in applied breeding programs

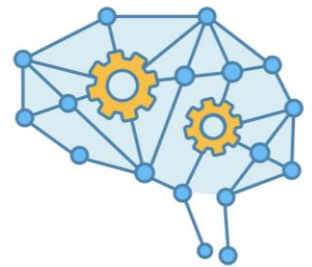
Prerequisites for participation:

- Basic knowledge of plant breeding and genetic
- Basics in biostatistics and data analysis
- Laptop with an installation the latest versions of R and RStudio (freeware)

Teachers:

Dr. Sebastian Michel; sebastian.michel@boku.ac.at

Dr. Barbara Steiner; barbara.steiner@boku.ac.at



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