

How to reach us

From Stuttgart (main station) take the railway U7 or U15 (underground station) in direction, Ostfildern" or Heumaden" until "Ruhbank" (Fernsehturm) then take the bus 70 in direction "Plieningen Seemühlenweg" until the bus stop "Universität Hohenheim".

From the Airport take the bus number 122 until the bus stop "Plieningen-Post" then change to bus lines 70 or 74.



Coordination

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Please register online at: www.fsp.uni-hohenheim.de



RESEARCH CENTER OF BIOTECHNOLOGY AND PLANT BREEDING (762)

Crop Genetic Diversity: From Description to Valorization

29th and 30th November 2016

Aula, Castle

University of Hohenheim Stuttgart



Crop Genetic Diversity: From Description to Valorization

An ever-increasing human population and the ongoing global climate change contributed to a renewed appreciation of crop genetic diversity for plant breeding and cultivation. This diversity plays a central role in several contexts: The improvement of major crops like maize and wheat; the breeding of minor crops to create new opportunities for breeders and farmers; and the breeding of established crops and their varieties for new uses. An efficient utilization of crop genetic diversity strongly profits from recent developments in genetics and genomics, in breeding methodology and phenotyping, as well as in computer science and data analysis. Much basic research on different aspects of genetic diversity still needs to be done. It is equally important to develop strategies for the valorization of genetic diversity to provide incentives for their conservation, scientific investigation and utilization.

At this colloquium, members of the plant and animal research groups of Hohenheim University and external partners will present ongoing research projects aimed to describe, conserve and valorize genetic diversity for breeding.

The colloquium also marks the end of the funding phase (2008 - 2016) of the **F. W. Schnell Endowed Professorship of Crop Biodiversity and Breeding Informatics** and on this occasion we will express our gratitude for the support provided by KWS SAAT SE, Stifterverband für die deutsche Wissenschaft and the University of Hohenheim.







12:00 – 13:00 Arrival & Registration Foyer, Castle 13:00 Prof. Karl Schmid, University of Hohenheim Welcome and opening address

Session I: Description of crop genetic diversity Chair: Karl Schmid

- **13:15 Dr. Martin Mascher**, IPK Gatersleben Barley diversity now and 6000 years ago
- **13:45 Markus Stetter**, University of Hohenheim Breeding ancient crops for modern agriculture: Amaranth
- 14:15 apl. Prof. Bettina Haussmann, KWS SEED SE and University of Hohenheim *KWS Capacity Development Project in Peru: Aims and achievements*
- **14:45 Juliane Böhm,** University of Hohenheim Characterization of genomic and phenotypic variation of European maize landraces

15:15 Coffee Break

Program

Session II: Identification of useful diversity Chair: Tobias Würschum

- **15:45 PD. Dr. Stefan Scholten,** University of Hohenheim Genomics and epigenomic methods in utilizing maize diversity
- **16:15 Patrick Thorwarth,** University of Hohenheim Using genomic prediction to characterize elite germplasm and genebank accessions
- **16:45 Mireia Vidal,** University of Hohenheim Contributing to an open-source breeding informatics infrastructure for the management and utilization of crop genetic diversity
- **17:15 Max Haupt,** University of Hohenheim Allele mining in gene banks to identify soy bean accessions for cultivation in Europe

18:00 Get Together

Wednesday 30th November 8:30 – 12:15

08:30 Prof. Dr. Stephan Dabbert, Rector, University of Hohenheim *Welcome address*

Session III: Using diversity in breeding

Chair: Stefan Scholten

- **08:45 Dr. Léon Broers,** Member of Executive board KWS SAAT SE *Quantitative approaches to trait improvement in maize breeding*
- **09:15 Prof. Dr. Jörn Bennewitz**, University of Hohenheim Breeding tools to consolidate and improve small cattle breeds with historic migration
- 09:45 Alena Pfeiffer, University of Hohenheim Breeding of soybean for Central Europe

10:15 Coffee Break

Session IV: Valorization of crop diversity Chair: Thomas Miedaner

- **10:45 PD Dr.Friedrich Longin**, University of Hohenheim Back to the future – Tapping into ancient grains for food diversity
- **11:15 Benedikt Kogler**, Verein Rheintaler Ribelmais, Salez SG, Switzerland Improvement and Valorization of the Swiss

Rheintaler Ribelmais Maize Landrace

- **11:45 Dr. Chris Ridout**, John Innes Center, Norwich UK Developing markets for heritage crop cultivars
- 12:15 Prof. Dr. Karl Schmid, Farewell