

Aims and history of BREEDMAP - Welcoming address of the initiator of the BREEDMAP symposium series

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The international symposium series Breeding Research on Medicinal and Aromatic Plants has been launched 1996 in Quedlinburg in view of the fundamental importance of breeding research for the progress in medicinal and aromatic plant (MAP) breeding. There is already a vast number of MAP symposia round the globe but none of it is exclusively dedicated to breeding research.

Breeding is one of the most important factors for the promotion of the MAP branch. Breeding adapts genotypes to the particular requirements of the stakeholders in the supply chain: seed companies, farmers, processing industries, trading and – most important – to the consumers' demand. High performance new cultivars contribute considerably to the production of high quality products in a profitable and sustainable way without additional production expenses because the characteristics are controlled genetically. Breeding research paves the way and develops the tools to improve the effectiveness of breeding procedures.

The aim of BREEDMAP is to promote the special field of science of MAP breeding research by providing a platform for the mutual exchange of knowledge of the comparably few involved experts. The intensification of the exchange of information and the initiation of co-operation are even more important because there is a lack of scientific information on breeding methods, the available research capacities are insufficient, the number of MAP species as breeding objects is particular large, the breeding aims are very diverse often also depending on different uses of one and the same species, the costs of needed chemical analysis are particular high and only limited financial funds are available due to the small reflux of the breeders' expense.

The symposium brings together experts of several scientific disciplines related to all aspects of breeding research on MAP: e.g. botany, plant genetic resources, agronomy, phytopathology, genetics, selection theory, cytology, cytogenetics, biochemistry, biotechnology, molecular genetics, chemical analytics and intellectual property rights. The following examples of important goals demonstrate the need of multidisciplinary approaches: to gain initial breeding material as donors of important characters like content of essential compounds, resistance to pathogens and pests, agronomic traits; to explore the inheritance of characters, cytogenetics, reproduction biology, crossing techniques, mutagenesis, selection methods including the use of markers, fundamentals of hybrid breeding, cell and tissue cultures, somatic hybridization, creation of doubled haploids, genetic engineering, molecular markers, rapid and nondestructive analytical methods for selection on chemical compounds, cost-benefit-ratio of breeding methods and plant breeders' rights.

Thanks to the support of the German Federal Ministry of Food, Agriculture and Forestry and the scientific organizations Society for Medicinal Plant Research (GA), European Association for Research on Plant Breeding (EUCARPIA), International Society for Horticultural Science (ISHS) and German Society of Plant Breeding (GPZ) Friedrich Pank could start with the first BREEDMAP Symposium in 1996 at the Federal Centre for Breeding Research on Cultivated Plant in Quedlinburg (afterwards Julius Kuehn Institute) assisted by Frank Marthe who is now the convener of the sixth symposium of this series. The conveners of the second symposium 2000 in Chania, Greece were Chris Johnson and Chlodwig Franz. The third symposium 2004 in Campinas, Brazil was directed by Pedro Melillo de Magalhães. The fourth symposium was held in Ljubljana, Slovenia in 2009 under the leadership of Dea Baričević. Johannes Novak invited the experts to the fifth symposium at Vienna, Austria in 2012. Now in 2016, the symposium returned to its birthplace in Quedlinburg and we thank Frank Marthe and all involved colleagues for the efforts to organize BREEDMAP 6. That the BREEDMAP symposium series is still alive after a period of 20 years is the proof that the idea meets a real need of the concerned scientific community.

I wish BREEDMAP a successful future to continue bringing together the experts concerned with MAP breeding research for exchange of the most recent findings, fruitful discussions and launching new multidisciplinary co-operation for the progress in this important and exciting field of science.

PD Dr. Friedrich Pank