

Obituary Professor Dr. Reinhard Lieberei

On March 5th 2019 Professor Reinhard Lieberei, one of the leading scientists in the field of Applied Botany, passed away in Gorleben at the age of 70. He was born on July 4th 1948 in Seefeld, a small city in the North of Germany. From 1968 to 1974, he studied biology at the TU Braunschweig. For his PhD, which he achieved in 1976, he joined the group of Prof. Dr. Böle Biehl and studied the activation of chloroplastic polyphenol oxidases. Thereafter, for his Habilitation, he entered the field of phytopathology and chemical ecology. In this context, Reinhard Lieberei's research was focussed on various diseases of the cyanogenic rubber tree, *Hevea brasiliensis*. He demonstrated that the HCN, which is liberated from injured *Hevea* leaves as potential defense mechanism against herbivores, strongly impairs the defense against pathogens by inhibiting the biosynthesis of phytoalexins. Related to this project, Reinhard Lieberei did his first research stay in the Central Amazon rain forest region in Brazil. The experiences of this enthralling adventure led to his ongoing interest in the tropics. Back in Germany, in 1984, he obtained his *venia legendi* in botany from the Faculty of Natural Science at the TU Braunschweig.

After his Habilitation, Reinhard Lieberei held a position as Assistant Professor at the Technical University Braunschweig, until, in 1989, he accepted a Professorship at the University of Hamburg in the Institute for Applied Botany. He held this position until his retirement in 2013. In the university, he was strongly engaged within the academic self-administration, e.g., as Head of the Institute, Head of the Department or Head of the Faculty.

In Hamburg, Reinhard Lieberei's research area was broadened by introduction of various physiological and biochemical aspects of plant tissue and organ culture, and – most importantly – the work on ecologically and economically sustainable agro-production in the tropics, in particular on value adding processing of cocoa beans, namely the control of fermentation. By further elucidating the physiological basis of cocoa fermentation and the intrinsic metabolic processes, he successfully carried on the seminal work of his mentor, Prof. Böle Biehl. Reinhard Lieberei became a well known and renowned specialist for his studies of cocoa fermentation. This scientific work – apart from the relevance for basic science – had an impact on processes in cocoa plantations. In this way, Reinhard Lieberei represented, like no other, the ideal of an “Applied Plant Biologist”. By his enthusiasm, he inspired and motivated many students to enter the field of plant biology. It was one of the major maxims of Reinhard Lieberei that he should pass on his knowledge



**Prof. Dr. Reinhard Lieberei
(1948-2019)**

and experiences to others. Accordingly, he was a very successful academic teacher and mentor. This is evidenced by the large number of scientists that were educated, trained and shaped by Reinhard Lieberei and his scientific philosophy.

In addition to Prof. Lieberei's successful research, his tremendous achievements as an academic teacher and his extensive administrative work, Reinhard Lieberei always was also committed to support the scientific community. Already in his early career, he was chairman of the association “Host Pathogen Interactions” within the German Phytomedicinal Society (*Deutsche Phytomedizinische Gesellschaft*). From 1996 to 2005, he was president of the German Society of Applied Botany (*Vereinigung für Angewandte Botanik*). In his incumbency, he has made many efforts to modernise and update the society. From 2008 to 2013, he

acted as editor-in-chief for the *Journal of Applied Botany*. Due to his comprehensive knowledge of plant biology and his extensive experience in the tropics, he was appointed as Scientific Head of the SHIFT programme (*Studies on Human Impact on Forests and Floodplains in the Tropics*), an important and extensive venture of the German Federal Ministry of Education and Research. For about six years (1996-2003), he was responsible for coordination and guidance of the various scientific endeavors involving sustainable management in Brazil. Because of his well known reputation, he was made a part of many other multilateral research projects, e.g., ECOMAN (*Ecosystem Management in Atlantic Rain Forest Rural Areas*). After his retirement he continued being active in the field of Applied Botany, and in 2018, he realized his lifelong dream by establishing a corresponding museum: the *Museum für Nutzpflanzen* in Gorleben, which was opened in October 2018.

Although the scientific work of Reinhard Lieberei was mainly established in field of Applied Botany, his research also had a strong impact in basic science, especially the interface between plant physiology, biochemistry and ecology. His contributions to this interdisciplinary area of research was based on his comprehensive knowledge and experience in each branch of plant biology. In this regard, Reinhard was one of the last and rare polymaths in modern plant biology.

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