

# 100 YEARS

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## Journal of Applied Botany

### EDITORIAL

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This year we want to celebrate the 100<sup>th</sup> birthday of our journal, which was first published as **Angewandte Botanik** (= Applied Botany) in 1919.

It started as journal for members of the “Vereinigung für Angewandte Botanik (German Society for Applied Botany)” only. On a monthly basis, it delivered the newest research results in the field of applied botany as well as short communications, literature reviews and reports from scientific meetings to the German speaking research community. After a short publication hiatus in the 1940ies, society members continued to report their findings, quickly exhausting the available print pages. Throughout the years, English titles and summaries were added, making the journal accessible for a wider, non-German speaking audience. The final step into the international research community was the opening of the journal for authors, who were not society members in the 1980ies. In 2004, the “Deutsche Gesellschaft für Qualitätsforschung – Pflanzliche Lebensmittel (German Society for Quality Research in Plant Foods)” joined the journal due to partial overlap in their research focus, thus, making it the **Journal of Applied Botany and Food Quality** as we know it today. The latest change happened in 2013, with the switch from a subscription based print journal to an online-only gold open access journal. This once again broadened the readership and gained the attention of even more international researchers, which nowadays make up the majority of our journal authors.

The first article in “Angewandte Botanik” published in 1919 was submitted by Otto Appel, a phytopathologist well known for his discoveries on bacterial and fungal diseases of crops such as potato and cereals. His work ranged from fundamental research to applied research and reflected in his long-term membership in the board of the Association for Applied Botany. In the first contribution of this special jubilee section Hartwig Schulz and Heike Riegler report about “Otto Appel and his contributions to food quality and safety at the beginning of the 20<sup>th</sup> century” and give insights into the major challenges in phytopathology at the early years of the 20<sup>th</sup> century and discoveries by Otto Appel in this field. Maik Kleinwächter

and Dirk Selmar prepared a contribution about “Modern Applied Botany – Changes in the perception of applied botanists to themselves and others during the last century. Three recent examples of the scientific potential of this field”. They give a short outline on the history of applied research in plant biology in Germany and illustrate the relevance of modern *Applied Botany* in three relevant post-harvest processes. They state that interdisciplinary work and intensive cooperation with growers and producers is an integral part of developing feasible and economically acceptable solutions that can be successfully transferred into practice. The major challenge in *Applied Botany* today is the implementation of new concepts and ideas into product-related research. The contribution of Muna Ali Abdalla and Karl H. Mühling leads us to “Plant-derived sulfur containing natural products produced as a response to biotic and abiotic stresses. A review of their structural diversity and medicinal importance” and reveals the diversity in structure and function of secondary compounds in plants. In the article written by Wolfgang Kreis “Exploiting plant cell culture for natural product formation” we get insights into the high expectations researchers and industry had on the exploitation of plant cell cultures from a historical and personal point of view. Imke Hutter and Carolin Schneider report on the current state of “Commercial micropropagation in Germany” from the applied site. In an interdisciplinary project, Jan Philipp Schuchardt, Andreas Hahn, Theresa Greupner, Paulina Wasserfurth, María Rosales-López, Johann Hornbacher and Jutta Papenbrock work on different aspects concerning “Watercress – cultivation methods and health effects”. Georg Langenkämper and Christian Zörb submit an article about “Modern aspects of wheat grain storage proteins”. Finally, on the interaction of plants with microorganisms, in this case fungi, is shed light on by Oluwatosin Abdulsalam, Erika Kothe and Katrin Krause in “The parasitic-neutral-mutual continuum of plant-fungal interactions”.