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From the ecology and functions of the plant microbiome to its importance in the food system

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Abstract

Complex microbiota are found in association with all different plant tissues, from the below-ground organs like roots/rhizosphere to above-ground tissues and reproductive organs. Depending on the tissues, vegetation stage and many other environmental factors, microbial communities are differently composed, driven by different parameters and are also responsible for multiple holobiont functions. In my talk I will address the ecology and functioning of microbiota in different plant tissues, e.g., the ecology and functioning of seed microbiota of *Setaria viridis*, or the potential role of potato root and rhizosphere microbiota in regard to drought stress mitigation and linkage of microbiome and plant phenotypic traits. I will also address application-relevant aspects as well as the role of (plant) microbiomes in the food system. Also, an overview of the EU-funded Coordination and Support Action MICROBIOMESUPPORT targeting food systems microbiomes will be given showing the highlights and achievements of this international collaborative effort towards the use of microbiomes to improve the health and resilience of food systems.

