GATERSLEBEN LECTURE

JUBILÄUM 80 IPK LEIBNIZ-INSTITUT

Speaker: **Prof. Dr. Liesje Mommer**
Department of Environmental Sciences,
Forest Ecology and Forest Management
Wageningen University & Research

Title: **Digging deeper: Belowground disease risk in diverse plant communities**

Time: **Tuesday, December 12, 2023, 2 pm**

Place: only **Online via Zoom**
VCS Zoom: https://ipk-gatersleben-de.zoom.us/j/62823845109?pwd=QzVmdWZoeXoxWGo0NmVYR3RZY1poZz09
Meeting-ID: 628 2384 5109 Kenncode: 647772

Skype for Business: https://ipk-gatersleben-de.zoom.us/skype/62823845109

Abstract:
The Plant species diversity is often associated with reduced disease risk. Yet, the scientific literature on diversity-disease relationships is unclear, showing conflicting relationships. This conflict highlights a major knowledge gap in our understanding of the mechanisms underpinning the diversity-disease relationships. Overcoming this gap is essential for transforming agricultural systems from monocultures that are sensitive to disease outbreaks to diverse cropping systems that are intrinsically resilient to pathogens.
In this lecture we will go underground: I will present recent advances in plant-soil feedback research in grassland biodiversity experiments. From these studies in Jena and Wageningen we have identified main soil-borne fungal pathogens, and we explore their behaviour in monocultures and mixtures to learn from nature to build agricultural systems that are robust to disease outbreaks.

CV:
Liesje Mommer is a professor in Belowground Ecology at Wageningen University and Research. She works in the field of biodiversity-ecosystem functioning, with a focus on belowground interactions, and plant root and soil-borne fungi in particular. She takes a mechanistic approach to investigate effects of biodiversity effects on ecosystem functioning, which awarded her many prestigious grants. She is a top-1% best cited scientist globally. It is her ambition to use the ecological insights from the plant-soil feedback research in biodiversity contexts to develop diversified, sustainable cropping systems.
She initiated and leads the Wageningen Biodiversity Initiative (WBI), which is a transdisciplinary network of researchers, students and stakeholders aiming to make a strong and significant contribution to 'bending the curve of biodiversity loss'. The initiative aims to connect and inspire both transformative research and education in order to collectively built nature-positive futures, with a focus on the food system and nature-based solutions.

Prof. Dr. Nils Stein (Organizer) *Prof. Dr. Nicolaus von Wirén (Host)*