

PLANT NUTRITION IN GLOBAL CHANGE

57th Annual Conference of the German Society of Plant Nutrition

LOCATION: Justus Liebig University Giessen, Ludwigstrasse 23, 35390 Giessen

DATE: September 29 – October 1, 2025

Preliminary Program

Organizing committee at the Justus Liebig University Giessen:



Institute of Plant Nutrition

Jakob Santner, Birgit Hütsch, Tabea Selzer



Department of Agronomy and Crop Physiology

Michael Frei, Linbo Wu, Johanna Krippner

Gold sponsors:



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General information

Registration

The registration desk is located in the entrance hall of the university main building (Ludwigstrasse 23). Please register before attending the conference. Registration will be open throughout the conference.

Conference language

The conference language is English. Only the members' meeting of the German Society of Plant Nutrition (DGP) will be held in German.

House rules

We kindly ask for your understanding that no food and drinks are allowed in the lecture hall ('Aula'). Please use the breaks to refresh yourself. Thank you for your understanding and cooperation!

Early Arrival - Sunday, September 28

18.00 h	Icebreaker Cocktail
	Location: to be announced

Day 1 - Monday, September 29

9.00 h	<i>Registration open</i>	
10.30 h	Welcome address	
10.50 h	K1 Winfried Winiwarter <i>International Institute of Applied Systems Analysis (Austria); University of Zielona Góra (Poland)</i>	Global impacts of nitrogen in the environment: the need to improve nitrogen use efficiencies in food production and beyond
11.30 h	T1 Wiebke Reymann	Soil organic carbon to clay ratios as determinant of nitrogen retention and fertilizer use efficiency
11.50 h	T2 Markus Weinmann	Integrating soil biodiversity and rhizosphere processes for climate-resilient, nutrient-efficient cropping systems: Insights from Four EU Projects
12.10 h	T3 Benjamin Neuhäuser	Phospho-switch from potential driven NH_4^+ accumulation to gradient dependent NH_3 transport
12.30 h	Light Lunch	
13.30 h	K2 Yiyong Zhu <i>Nanjing Agricultural University (China)</i>	Plasma membrane H^+-ATPases in plant nutrition and crop improvement
14.00 h	T4 Oriana Mariani	Endoplasmic reticulum-localized cation transporters - crucial for plant development, fertility, and nutrition
14.20 h	T5 Dhirendra Fartyal	Exploring the role of inositol pyrophosphates in rice phosphate homeostasis
14.40 h	T6 Tobias Reineke	Phosphorus deficiency affects early root development in <i>Triticum turgidum</i> ssp.
15.00 h	T7 Shayam Pariyar	Mineral nutrients composition and leaf surface wetness of atmospheric aerosols collected from Germany and Israel
15.20 h	Coffee break	
16.30 h	P Poster session - even numbers	
17.00 h	K3 Rivka Elbaum <i>Hebrew University of Jerusalem (Israel)</i>	Formation pathways of biosilica in sorghum
17.20 h	T8 Stefan Hanstein	Slow-release mineral fertilizers with compostable plastic coatings
17.40 h	T9 Maarten Everaert	Novel slow-release seed coatings for improved micronutrient supply to crops
18.00 h	<i>End</i>	

Day 1 - Monday, September 29

18.30 h Members' meeting of the German Society of Plant Nutrition (DGP)

- **members only** -

Location: Ludwigstrasse 23, Biologie-Hörsaal (2nd floor, room 232)

Snacks and drinks will be provided

Day 2 - Tuesday, September 30

8.15 h *Registration open*

8.30 h Gold sponsor presentations

9.00 h **K4** **Sandra Schmöckel** ***Chenopodium quinoa* - a minor crop for future marginal soils**
University of Hohenheim (Germany)

9.30 h **T10** Matthias Wissuwa Development of Zn-biofortified rice for Madagascar

9.50 h **T11** Andriele Wairich Discovering the hidden power of wild rice: A key to mineral disorders tolerance

10.10 h **T12** Sabine von Tucher Wheat as an early indicator for the shortage of phosphorus in soil

10.30 h Coffee break

11.00 h **P** Poster session - uneven numbers

12.00 h **T13** Thomas Alcock Fine mapping quantitative trait loci controlling boron efficiency in Brassicaceae by combining genetic and phenotypic information from natural and generated populations

12.20 h **T14** Klea Lami NUDIX-Type hydrolases in *Arabidopsis thaliana* target specific inositol pyrophosphates and modulate nutrient signaling

12.40 h **T15** Jóska Gerendás Defining plant nutrient elements from the plant's perspective

13.00 h Light Lunch

14.00 h **K5** **Mohsen Zare** **From soil to root: the role of mucilage in facilitating nutrient and water uptake**
Technical University of Munich (Germany)

14.30 h **T16** Raphael Tiziani Root exudate responses to combined phosphorus deficiency and microplastic stress

14.50 h **T17** Mirriam Chishala Chibesa Characterization of polyacrylamide ZrOH hydrogels for sampling root-exuded carboxylates from soil-grown plants

15.10 h **T18** Britta Pitann Understanding waterlogging tolerance: Mitigation strategies to cope with excess water

15.30 h Coffee break

Day 2 - Tuesday, September 30

16.00 h **P** Free poster session

16.30 h **T19** Uwe Ludewig Positive interactions between plant-beneficial inoculants and members of the resident soil microbiome improve plant performance under stress

17.00 h *End*

19.00 h Conference Dinner
- **registered participants only** -

Location: Bootshaus, Bootshausstrasse 12, 35390 Giessen

How to get there?

- a. **Walking distance** : 1.5 km (approximately 20 min)
 - b. **Public transport**:
 - Walk to Berliner Platz (550 m)
 - Take bus line 2, 3, 7, 801 or 802 until "Gießen Oswaldsgarten"
 - Walk to the restaurant (400 m)
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Day 3 - Wednesday, October 1

8.15 h	<i>Registration open</i>		
8.30 h	Gold sponsor presentations		
9.00 h	K6	Yoshiaki Ueda <i>Japan International Research Center for Agricultural Sciences (Japan)</i>	Integration of nutrient signals in plants: Mechanisms, genotypic differences, and modeling
9.30 h	T20	Franziska Daamen	Conducting stress signalling: Impact of organellar calcium dynamics on salt tolerance
9.50 h	T21	Marion Deichmann	Detection of nutrient deficiencies in barley from RGB images, hyperspectral images, and hyperspectral point sensor data
10.10 h	T22	Naser Atu Qasim	Profitability of digestate application strategies - results from parcel and field trials
10.30 h	Coffee break		
11.15 h	Poster Awards & Doctoral Award Presentation by the recipient of the Doctoral Award		
12.00 h	Farewell address		
12.30 h	<i>End</i>		

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