

# Program



World Soybean  
Research Conference

18 – 23 June 2023

**Vienna | Austria**

## Welcome to the WSRC 11

On behalf of the conference committees and the Donau Soja Association, the hosting institution, I feel truly honoured and privileged to welcome you to the 11<sup>th</sup> World Soybean Research Conference (WSRC11).

The opportunity to host this important scientific event for the first time in Europe is a special honour and a much-appreciated acknowledgement of the enhanced international cooperation fostered by the European soybean research community. The Local Organizing Committee and the Scientific Committee have devoted their efforts toward creating a stimulating scientific, social, and cultural experience for all conference attendees.

We, the world soybean community, can only overcome the current and future challenges if we broaden our perspectives. Therefore, we welcome all of you to participate in the conference and invite you to contribute to the program, with sincere hopes that the conference will be a week full of new insights, intellectual excitement, and memorable moments.

After difficult years under the pandemic we are bringing the soybean community back together in Vienna. Vienna is rich in history and culture but 2023. We are particularly pleased to host WSRC11 in 2023 because this year marks the 150<sup>th</sup> anniversary of the 1873 World Expo in Vienna which was a milestone for the worldwide expansion of soybean. I invite you to enjoy and experience both an inspiring scientific program and the traditional Viennese culture and "*Gemütlichkeit*".

We warmly welcome you to Vienna and look forward to meeting all of you over the course of the week.

Yours Sincerely,

**Johann Vollmann**

University of Natural Resources and Life  
Sciences, Vienna  
Chair of the WSRC11 Scientific Committee

**Matthias Krön**

Donau Soja Association, Vienna  
Chair of the WSRC11 Organizing Committee



## WSRC 11 ORGANIZING COMMITTEE



### **Donau Soja**

Wiesingerstrasse 6/14, 1010 Vienna, Austria

[office@donausoja.org](mailto:office@donausoja.org)

[www.donausoja.org](http://www.donausoja.org)



### **University of Natural Resources and Life Sciences, Vienna, Austria**

[www.boku.ac.at](http://www.boku.ac.at)



### **Institute of Field and Vegetable Crops, Novi Sad**

Maksima Gorkog 30, 21101 Novi Sad, Republic of Serbia

[institut@ifvcns.ns.ac.rs](mailto:institut@ifvcns.ns.ac.rs)

<https://ifvcns.rs/en>



### **Columbus Congress & Events**

Universitätsring 8, A-1010 Vienna

[office@columbus.at](mailto:office@columbus.at)

[www.columbus.at](http://www.columbus.at)

## YOUR SUPPORT TEAM ON-SITE



Marcella Gross-Varga  
Donau Soja



Georg Spreitzer  
Donau Soja



Fabienne Roblek  
Donau Soja



Leopold Rittler  
Donau Soja



Sissy Aschenbach  
Columbus



Theresa Schauppenlehner  
Columbus



Karin Fussi  
Columbus

### We are here to help you

#### During the conference:

Congress secretariat,  
[wsrc11vienna@columbus.at](mailto:wsrc11vienna@columbus.at)

You can find us during the opening hours  
(from 8:00 – 18:00) at the registration desk  
in the entrance area of the venue.

#### For urgent matters:

Registration desk, mobile: [+43 6648141378](tel:+436648141378)

Sponsoring & exhibition:  
Karin Fussi, mobile: [+43 66488366306](tel:+4366488366306)

Marcella Gross-Varga, mobile:  
[+43 66478012359](tel:+4366478012359)

### Media & press

#### Franko Petri

Donau Soja  
Email: [petri@donausoja.org](mailto:petri@donausoja.org)  
Mobile: [+43 66488961298](tel:+4366488961298)



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D3   Advanced tools and sensors for soybean protection	Hall G2	31
A8   Breeding for biotic stress	Hall K	32
C5   Seed production, vigor and technology	Hall G1	32
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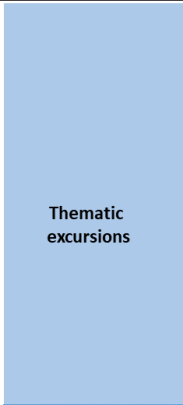


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# PROGRAM OVERVIEW

	Day 0 Sunday 18 June	Day 1 Monday 19 June	Day 2 Tuesday 20 June	Day 3 Wednesday 21 June	Day 4 Thursday 22 June	Day 5 Friday 23 June
8:30		Exhibition hours 10:00 – 17:30			10:00–16:30	   World Soybean Research Conference 18 – 23 June 2023 Vienna   Austria
10:15		Registration and poster set-up	European soybean session (plenary)	Soybean in agricultural systems (plenary)	Regional soybean reports (plenary)	
11:00		Opening addresses and keynotes 10:30–12:30	Coffee break and exhibition			
12:40			A3 B3 C1 W6	A5 C3 D1 W3	A7 C4 D3	
14:10		Lunch break and exhibition				
15:50	Registration	Parallel sessions and workshops				
16:15		A1 B1 E1 W7	A4 B4 C2 W2	A6 B6 D2 W4	A8 C5 D4 W5	
16:15		Coffee break				
17:55	<b>Welcome reception</b> venue: Austria Center Vienna 16:30 – 19:00	A2 B5 B2 W1	<b>Poster session I</b> Odd numbers <b>Industry exhibition</b>	<b>Poster session II</b> Even numbers <b>Industry exhibition</b>		
19:00		<b>Night of European Soy</b> venue: Welt Museum Doors Open   17:00 Welcome   19:00 End   22:30			<b>Gala evening</b> venue: Vienna City Hall 18:30 – 22:00	

A	Breeding, genetics, genomics, and biotechnology
A1	Soybean pangenome and genetic diversity
A2	Innovations in breeding technology
A3	Genomics-assisted breeding
A4	Seed composition
A5	Soybean genome editing
A6	Breeding for abiotic stress and climate change
A7	Germplasm collections and evaluation
A8	Breeding for biotic stress
B	Food, feed, and nutrition
B1	Chemistry and nutrition of soybeans and soy products
B2	Feed and aquaculture developments
B3	The future of soy is food
B4	Soy protein functionality and processing
B5	Soy foods, soy bioactives, and improvement for human health
B6	Assessing sustainability of soybean supply chains
C	Agronomy, physiology, and agrotechnology
C1	Yield and seed composition response to environment
C2	Using data-driven knowledge for profitable crop management

C3	Soil fertility and plant nutrition
C4	Soybean rhizosphere and nitrogen fixation
C5	Seed production, vigor and technology
D	Weeds, diseases, pests, and their management
D1	New and emerging pests and diseases
D2	Strategies for disease, pest and weed control
D3	Advanced tools and sensors for soybean protection
D4	Managing disease, pest and weed resistance
E	Business and legal
E1	Policy, and corporate social responsibility (CSR)
W	Workshops
W1	Soybean for Africa
W2	Introduction to SoyBase (soybase.org), the soybean breeder's toolbox
W3	Knowledge exchange for European soybean agronomists
W4	Science For Success: A model program for applied research and extension outputs
W5	Advanced genotyping and phenotyping for organic soybean breeding (ECOBREED project)
W6	Soy processing technologies
W7	Soybean market developments

## PROGRAM OVERVIEW

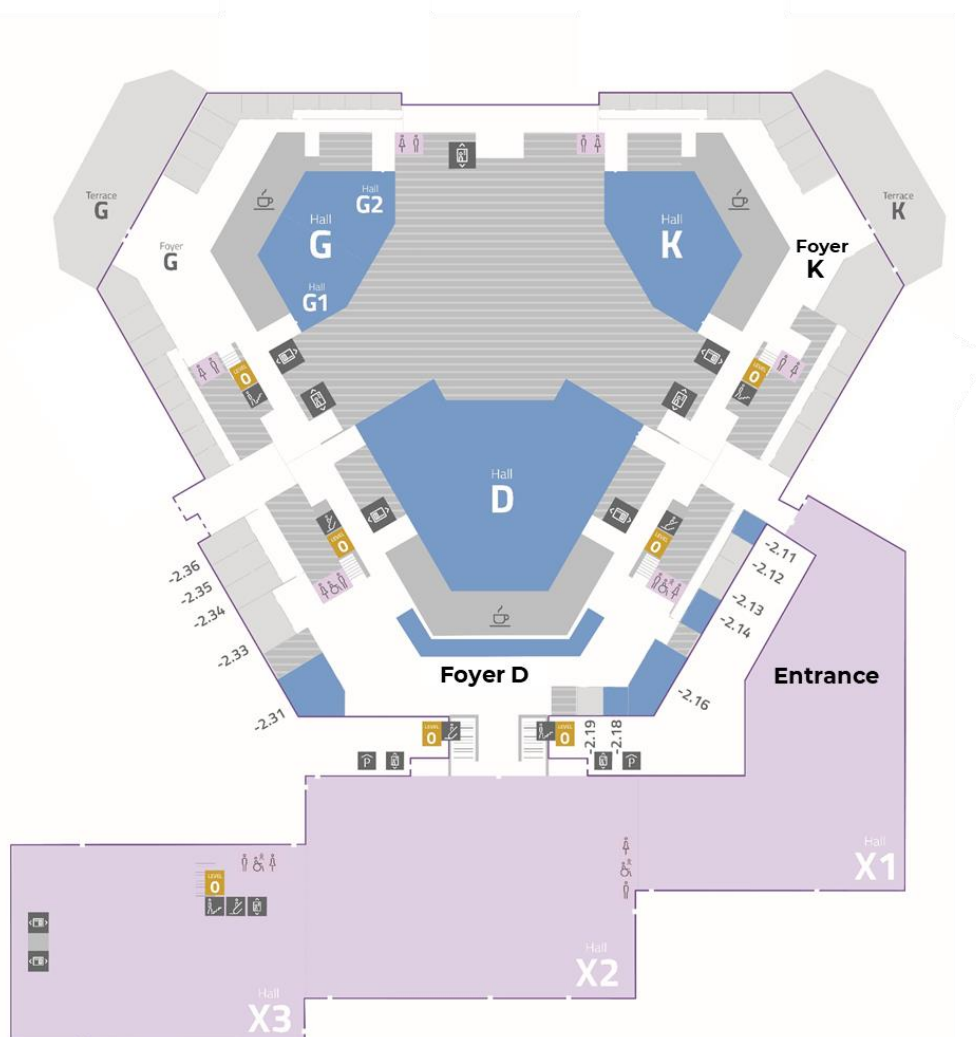
Session		Chair	Day	Room
<b>A Breeding, genetics, genomics, and biotechnology</b>				
A1	Soybean pangenome and genetic diversity	H. Nguyen	Mon	K
A2	Innovations in breeding technology	J. Miladinovic	Mon	K
A3	Genomics-assisted breeding	Z. Li, X. Li	Tue	K
A4	Seed composition	K. Bilyeu, J.-D. Lee	Tue	K
A5	Soybean genome editing	R. Stupar	Wed	K
A6	Breeding for abiotic stress and climate change	V. Hahn	Wed	K
A7	Germplasm collections and evaluation	L. Qiu, Q. Song	Thu	K
A8	Breeding for biotic stress	I. Rajcan, K. Meksem	Thu	K
<b>B Food, feed, and nutrition</b>				
B1	Chemistry and nutrition of soybeans and soy products	K. Liu, C. Parsons	Mon	G1
B2	Feed and aquaculture developments	M. N. Riaz, I. A. Chihaiia	Mon	G2
B3	The future of soy is food	M. Krön	Tue	G1
B4	Soy protein functionality and processing	L. Sagis	Tue	G1
B5	Soy foods, soy bioactives, and improvement for human health	K. Liu, I. Rajcan	Mon	G1
B6	Assessing sustainability of soybean supply chains	T. Nemecek, W. Zollitsch	Wed	G1
<b>C Agronomy, physiology, and agrotechnology</b>				
C1	Yield and seed composition response to environment	S. L. Naeve	Tue	G2
C2	Using data-driven knowledge for profitable crop management	P. Esker	Tue	G2
C3	Soil fertility and plant nutrition	H. Liao	Wed	G1
C4	Soybean rhizosphere and nitrogen fixation	A. Sessitsch	Wed	G1
C5	Seed production, vigor and technology	J. Buitink, M. Gohn	Thu	G1
<b>D Weeds, diseases, pests, and their management</b>				
D1	New and emerging pests and diseases	T. Duvnjak, T. Wilkerson	Wed	G2
D2	Strategies for disease, pest and weed control	Y. Wang	Wed	G2
D3	Advanced tools and sensors for soybean protection	A. K. Singh	Thu	G2
D4	Managing disease, pest and weed resistance	D. Ploper	Thu	G2
<b>E Business and legal</b>				
E1	Policy, and corporate social responsibility (CSR)	D. Murphy-Bokern	Mon	G2
<b>W Workshops</b>				
W1	Soybean for Africa	B. Diers	Mon	-2.31
W2	Introduction to SoyBase (soybase.org), the soybean breeder's toolbox	R. Nelson	Tue	-2.31
W3	Knowledge exchange for European soybean agronomists	L. Rittler	Wed	-2.31
W4	Science For Success: A model program for applied research and extension outputs	R. Vann	Wed	-2.31
W5	Advanced genotyping and phenotyping for organic soybean breeding (ECOBREED)	V. Djordjevic, U. Zibrat	Thu	-2.31
W6	Soy processing technologies	W. Sitzmann	Tue	-2.31
W7	Soybean market developments	D. Marcomin	Mon	-2.31



## PROGRAM OVERVIEW

Monday   19 June			Room
10:30 – 12:30		Opening addresses	K
		Soybean research for sustainable development	K
12:30 – 14:10		<i>Lunch break and exhibition</i>	D
14:10 – 15:50	A1	Soybean pangenome and genetic diversity	K
	B1	Chemistry and nutrition of soybeans and soy products	G1
	E1	Policy, and corporate social responsibility	G2
	W7	Soybean market developments	-2.31
15:50 – 16:15		<i>Coffee break</i>	D
16:15 – 17:55	A2	Innovations in breeding technology	K
	B5	Soy foods, soy bioactives, and improvement for human health	G1
	B2	Feed and aquaculture developments	G2
	W1	Soybean for Africa	-2.31
Tuesday   20 June			Room
08:30 – 10:15		European soybean session (plenary)	K
10:15 – 11:00		<i>Coffee break and exhibition</i>	D
11:00 – 12:40	A3	Genomics-assisted breeding	K
	B3	The future of soy is food	G1
	C1	Yield and seed composition response to environment	G2
	W6	Soy processing technologies	-2.31
12:40 – 14:10		<i>Lunch break and exhibition</i>	D
14:10 – 15:50	A4	Seed composition	K
	B4	Soy protein functionality and processing	G1
	C2	Using data-driven knowledge for profitable crop management	G2
	W2	Introduction to SoyBase	-2.31
16:15 – 17:55		Poster session I (odd numbers) & industry exhibition	Foyer D
Wednesday   21 June			Room
08:30 – 10:15		Soy in agricultural systems (plenary)	K
10:15 – 11:00		<i>Coffee break and exhibition</i>	D
11:00 – 12:40	A5	Soybean genome editing	K
	C3	Soil fertility and plant nutrition	G1
	D1	New and emerging pests and diseases	G2
	W3	Knowledge exchange for European soybean agronomists	-2.31
12:40 – 14:10		<i>Lunch break and exhibition</i>	D
14:10 – 15:50	A6	Breeding for abiotic stress and climate change	K
	B6	Assessing sustainability of soybean supply chains	G1
	D2	Strategies for disease, pest and weed control	G2
	W4	Science For Success: A model program for applied research and extension outputs	-2.31
16:15 – 17:55		Poster session II (even numbers) & industry exhibition	Foyer D
Thursday   22 June			Room
08:30 – 10:15		Regional soybean reports (plenary)	K
10:15 – 11:00		<i>Coffee break and exhibition</i>	D
11:00 – 12:40	A7	Germplasm collections and evaluation	K
	C4	Soybean rhizosphere and nitrogen fixation	G1
	D3	Advanced tools and sensors for soybean protection	G2
12:40 – 14:10		<i>Lunch break and exhibition</i>	D
14:10 – 15:50	A8	Breeding for biotic stress	K
	C5	Seed production, vigour and technology	G1
	D4	Managing disease, pest and weed resistance	G2
	W5	Advanced genotyping and phenotyping for organic soybean breeding, Ecobreed	-2.31

# FLOOR PLAN



	Monday – 19 Jun			Tuesday – 20 Jun				Wednesday – 21 Jun				Thursday – 22 Jun		
<b>K</b>	<b>Opening</b>	A1	A2	<b>Plenary</b>	A3	A4		<b>Plenary</b>	A5	A6		<b>Plenary</b>	A7	A8
<b>G1</b>		B1	B5		B3	B4			C3	B6			C4	C5
<b>G2</b>		E1	B2		C1	C2			D1	D2			D3	D4
<b>-2.31</b>		W7	W1		W6	W2			W3	W4				W5
<b>Foyer D</b>							<b>Poster I</b>				<b>Poster II</b>			
<b>Foyer K</b>	Live transmission													

**Hall D:** Exhibition, coffee break and lunch break

# HOW TO GET TO THE CONFERENCE VENUE

**Conference venue:** Austria Center Venue (ACV)

**Address:** Austria Center, Bruno-Kreisky-Platz 1, 1220 Wien

**Google Maps:** <https://goo.gl/maps/sWY3AazthZbCezGk8>

The ACV is located next to the UNO-City (also called Vienna International Centre, VIC).

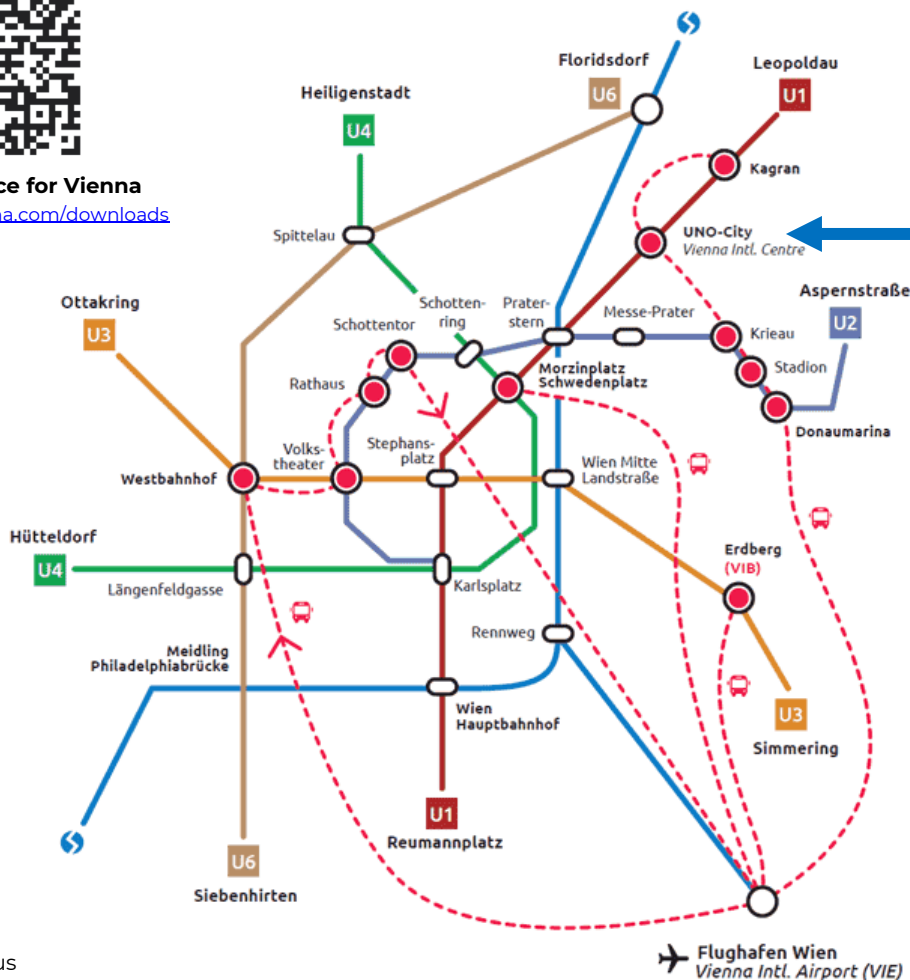
## Please note

Kindly note that there is no organized transport between the venues, and attendees are responsible for their own transportation arrangements.



Travel guidance for Vienna

[www.wsrc11vienna.com/downloads](http://www.wsrc11vienna.com/downloads)



Red dotted: bus

Blue: train

U1, U2, U3, U4, U6: underground/metro

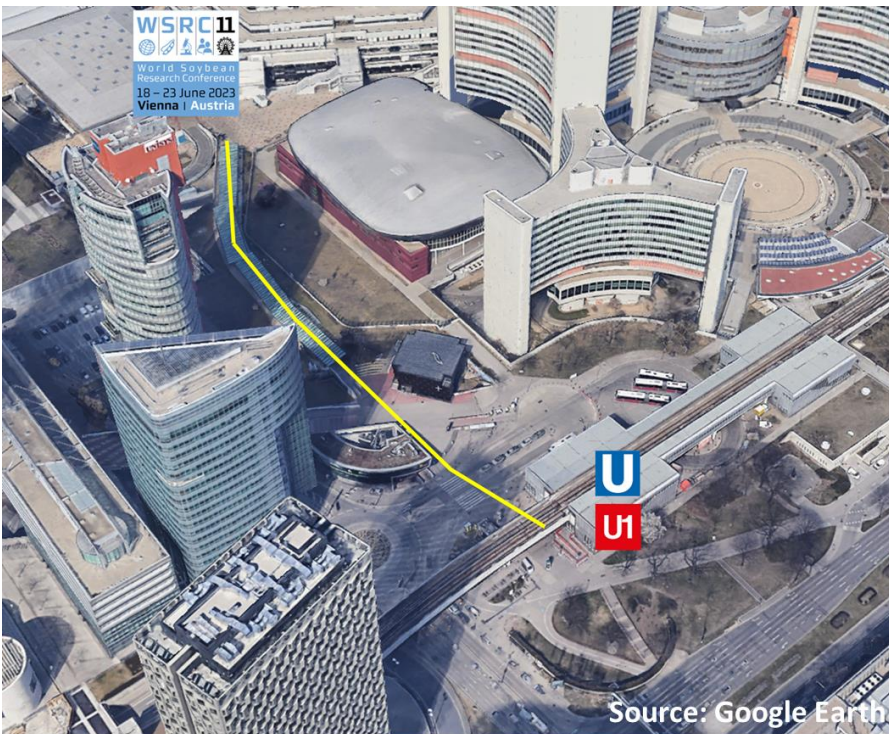
## How to get there by public transport (our recommendation)

Vienna has an excellent public transport system, which includes trains ('S-Bahn'), metros, trams and buses. We recommend taking a multi-day ticket for the public transport in Vienna. You can buy it through the WienMobil app or at the ticket machines. (see link below)

- The Austria Center Vienna is located next to the subway station **U1 Kaisermühlen-VIC (red line)**, in the northern part of Vienna. From this station, you can reach the venue in 5 min by foot. Take the exit 'Kaisermühlen-VIC'.
- Leave the metro station via the exit 'Kaisermühlen-VIC' and turn right, see photo and map.
- If you see the covered walkway (see photo below) you are on the right track, see green line below. You will see WSRC 11 labels. Welcome to the WSRC 11!

Attention: Unfortunately, Google Maps does not recommend the shortest walk from the U1 station to the venue. Please follow our instructions.

Additional guidance for the Vienna public transportation system is available on the WSRC 11 website (see link and QR code on previous page).



**yellow route = walk from metro station to ACV**

**Turn right at the U1 exit and within a few metres you will see the first WSRC labels.**



## SUNDAY | 18 JUNE

We are pleased to invite you already on Sunday for the WSRC 11 welcome reception at the conference venue of the WSRC 11 (Austria Center Vienna). You will have the chance to talk to fellow scientists and international exhibitors. With small drinks and snacks we want to celebrate a nice get-together before the beginning of the conference.

### Registration is open

On this occasion, you can already register and receive your conference badge.

### Address:

Austria Center Vienna, Bruno-Kreisky-Platz 1

**Doors Open:** 16:30

**End:** 19:00

**WSRC 11**

World Soybean  
Research Conference  
18 - 23 June 2023  
Vienna | Austria

**Welcome reception**

Sunday, 18 June  
Austria Center Vienna

© Robert Tölgel

08:00

### Doors Open | Registration | Poster setup

The registration desk is open on Mon-Wed (08:00-18:00) and on Thu (08:00-16:00).

10:30 – 12:30

### Opening ceremony

Facilitation by Leopold Rittler, Donau Soja, Austria

### Opening addresses **Hall K (transmission in Foyer K)**

- [Ricardo Abdelnoor](#), Embrapa, Brazil, Chair of WSRC Continuing Committee
- [Matthias Krön](#), Donau Soja, Austria, Chair of the WSRC 11 Organizing Committee
- **Norbert Totschnig**, Federal Minister for Agriculture, Forestry, Regions and Water Management, Austria
- **Leonore Gewessler**, Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology, Austria

### Opening research plenary: Soybean research for sustainable development

*Chair: Kristin Bilyeu, USDA/ARS and University of Missouri, Columbia, Missouri, USA*

Scientific research is the major engine which ensures progress in soybean production and utilization for meeting the United Nation's Sustainable Development Goals. While FAO will present a global perspective on soybean challenges and achievements, a leading soybean research representative will provide insights into present and future technologies for sustainable soybean production.

- [Jingyuan Xia](#), Director of Plant Production and Protection Division (NSP), FAO, Italy.  
**Keynote: Optimization and minimization towards sustainable soybean production.**
- [Istvan Rajcan](#), University of Guelph, Guelph, Ontario, Canada; member of the WSRC Continuing Committee; **Keynote: Classical and modern technologies used world-wide for sustainable soybean production.**

12:30 – 14:10

### LUNCH BREAK AND EXHIBITION

**Hall D**

14:10 – 17:55

### PARALLEL SESSIONS AND WORKSHOPS

14:10 – 15:50

### A1 | Soybean pangenome and genetic diversity Hall K

Chair: Henry Nguyen, University of Missouri, Columbia, Missouri, USA

This session will highlight recent advances in soybean pangenomics, global HapMap, and application of new genomic resources for the understanding of domestication and genetic diversity for trait discovery.

- **Soybean pangenomics: global variation map for enhanced haplotype-based trait mapping.** Henry Nguyen, University of Missouri, USA
- **Evaluation and harnessing of diversity in soybean using the omics-based high-throughput strategies.** Yinghui Li, Chinese Academy of Agricultural Sciences, China
- **Improving wild germplasm utility using telomere-to-telomere assemblies and pangenomic graphs.** Justin Vaughn, USDA-ARS and University of Georgia, USA
- **Genetic and genomic bases of soybean domestication and diversification.** Jianxin Ma, Purdue University, USA

14:10 – 15:50

### B1 | Chemistry and nutrition of soybeans and soy products Hall G1

Chairs: [Keshun Liu, USDA/ARS, Aberdeen, Idaho, USA](#), and [Carl M. Parsons, University of Illinois, Urbana, Illinois, USA](#)

This session covers recent developments in chemistry and analysis of nutrients and antinutrients in soybeans and soy products and the latest work and findings in human and animal nutrition of various soy products as foods and feeds.

- **The untapped potential of soybeans for human nutrition in Sub-Saharan Africa.** Juan E. Andrade Laborde, University of Florida, USA
- **Novel and simple method to determine contents of Kunitz trypsin inhibitor and Bowman-Birk inhibitor in soybeans.** Keshun Liu, U.S. Department of Agriculture, USA
- **Effect of digestible essential to non-essential amino acids ratio on soybean meal productive energy (Arkansas Net Energy) in broilers: Implications beyond metabolizable and classic net energy.** Craig N. Coon, University of Arkansas, USA

14:10 – 15:50

### E1 | Policy, and corporate social responsibility (CSR) Hall G2

Chair: [Donal Murphy-Bokern, Independent, Lohne, Germany](#)

Science and technology provide opportunities but the interaction between public and business policies are crucial to innovation. This is especially true of the soybean. The aim of this session is to foster dialogue between experts in the natural sciences, policy, and business to find ways forward in governance that advance the contribution of soybean to sustainable development.

WSRC11 is taking place at a time when there is great focus on links between land-use change and food production. Breaking these links is essential to the sustainable development of all food value chains, especially those that use soya. The session will focus on decoupling soya

production from tropical and sub-tropical deforestation and conversion. This involves both public and private policy action. On the public side, the recently developed European Union's Deforestation Regulation provides a very relevant policy back drop to a discussion that is relevant across the world. On the private side, corporate social responsibility (CSR) in the food industry is an important driver. We have four presentations from four experts who have devoted much of their professional lives to decoupling our food production and consumption from deforestation and conversion of natural ecosystems, especially through the development of sustainable value chains. They will share their insights as background to a workshop-style discussion that all participants can contribute to (organized within the Eat4Change Project).

- **The European Union's Deforestation Regulation and soya.** *Lieven Callewaert, Chair of the Collaborative Soy Initiative (CSI), Belgium*
- **How to stop deforestation properly.** *Ursula Bittner, Economics expert, Greenpeace in central and eastern Europe, Austria*
- **Deforestation and conversion-free soy supply chains.** *Guillaume Tessier, World Wildlife Fund (WWF), Global Soy Lead, Brazil*
- **From shelf to field: why retailers are critical partners in the delivery of deforestation free soy.** *Will Schreiber, 3Keel Group Ltd., United Kingdom*

14:10 – 15:50

W7 | **Soybean market developments**      **Room -2.31**

*Chair: Daniele Marcomin, Agriholism, Italy*

Market experts will analyze in this session the current and long-term trends in soybean supply and demand in global markets. A special emphasis is given to European markets.

- **Current situation and prospects of global supply and demand of soybeans.** *Thomas Mielke, ISTA Mielke – Oil World, Germany*
- **European soybean market, with special focus on the non-GM soya sector.** *Daniele Marcomin, Agriholism, Italy and Bertalan Kruppa, Donau Soja, Hungary*
- **Oilseed and vegetable oils markets of Ukraine and the Black Sea region. Trade flows shifts. 2022-2024.** *Sergey Feofilov, UkrAgroConsult, Ukraine*

15:50 – 16:15

**COFFEE BREAK**

**Hall D**

16:15-17:55

**A2 | Innovations in breeding technology**

**Hall K**

*Chairs: [Jegor Miladinovic, Institute of Field and Vegetable Crops, Novi Sad, Serbia](#)*

The session deals with the latest advances and innovative approaches in soybean breeding. Emerging and new platforms and tools for acceleration of soybean breeding will be discussed by selected speakers.



- **SoyMAGIC: An 8-parent multi-parent advanced generation inter-cross population for soybean genetic studies and breeding activities.** *Milad Eskandari, University of Guelph, Canada*
- **Mapping and selection for yield stability in soybeans.** *David L. Hyten, University of Nebraska–Lincoln, USA*
- **Tilling by sequencing to improve seed traits in soybean.** *Khalid Meksem, Southern Illinois University, USA*
- **Digital solutions in plant breeding.** *Maximilian Mayer, Wintersteiger, Austria*

16:15-17:55

### B5 | Soy foods, soy bioactives, and improvement for human health **Hall G1**

*Chairs: Keshun Liu, U.S. Department of Agriculture, USA and Istvan Rajcan, University of Guelph, Ontario, Canada*

Soybeans and soyfoods have been known as a powerhouse of phytochemicals. Many of them have been shown to exert bioactive and therapeutic effects on human health. This session covers health benefits of soybeans and soyfoods in terms of identification of soy bioactives, improvement through food processing and/or genetic manipulation.

- **Influence of kori-tofu on lipid and glucose metabolism and its resistant protein content.** *Takahiro Ishiguro, Asahimatsu Foods, Japan*
- **Multifunctional bioactive peptides derived from soy protein hydrolysates: antioxidant activity and inhibitory activity on  $\alpha$ -glucosidase and  $\alpha$ -amylase.** *Yue Xu, Harbin University of Commerce, China*
- **Spermidine in soybean: From genetic variation to health-promoting food products.** *Johann Vollmann, University of Natural Resources and Life Sciences, Austria*
- **Soybean isoflavone molecular breeding in China.** *Junming Sun, Chinese Academy of Agricultural Sciences, China*
- **Identification and validation of candidate genes controlling tocopherol synthesis pathway in soybean.** *Cheolwoo Park, The Japan International Research Center for Agricultural Sciences, Japan*

16:15-17:55

### B2 | Feed and aquaculture developments **Hall G2**

*Chairs: [Mian N. Riaz, Texas A&M University, College Station, Texas, USA](#)  
[Iani Adrian Chihaiia, Independent, Bucharest, Romania](#)*

Feed industry is looking to find alternative protein sources to produce sustainable aqua feed. Soybean ingredients have gained the popularity because its yearlong availability, sustainable supplies, and high protein content. This session will discuss soy ingredients in feed and aqua feed production, nutritional advantages and effect on processing aqua feed.

- **Fermented soybean meal and soy quality control for aqua feeds.** *Jan Van Eys, USSEC Europe, France*

- **Soy industry 4.0 is here. Is Europe ahead in rethinking innovation in value-added soy products?** *Iani Chihaia, Independent consultant, Romania*
- **Aqua feed extrusion with soy-based ingredients.** *Mian N. Riaz, Texas A&M University, USA*
- **The use of ultra-high protein, low oligosaccharides soybean meals varieties in aquaculture.** *Jorge Gallardo, Benson Hill, USA*
- **The case of novel ingredients in the feed and food industry: how to approach novelty.** *Sergio Nates, Prairie Aquatech, USA*

16:15 – 17:55

### W1 | Soybean for Africa      Room -2.31

Chair: [Brian Diers, University of Illinois, Urbana, Illinois, USA](#)

There is growing demand for soybean in Africa but production is limited by low yields. This workshop will focus on soybean improvement in Africa and will include talks on breeding and other research that address the low yields found on the continent.

- **Product profile aligned breeding in tropical soybean: a foundation for integrating quantifiable attributes into new varieties.** *Godfree Chigeza, International Institute of Tropical Agriculture, Lusaka, Zambia*
- **Seed Co's commercial soybean variety attributes, distribution and availability across Africa.** *Mwila Chibanda, Seedco International Limited, Zambia*
- **The Pan African Trial platform, a novel and new seed system approach that works.** *Michelle da Fonseca Santos, Soybean Innovation Lab, USA*
- **Genetic gain, achievements and challenges of the IITA soybean breeding program in Nigeria: Implications for other West African countries.** *Abush Abebe, International Institute of Tropical Agriculture, Ibadan, Nigeria*
- **Phylogenetic and seed composition stability analyses for cultivars in the USAID Soybean Innovation Lab Pan-African Soybean Variety Trials.** *Elizabeth De Meyer, University of Missouri, Columbia, USA*
- **Evaluation of soybean genotypes for response to *Coniothyrium glycines*, the cause of red leaf blotch.** *Harun Murithi, International Institute of Tropical Agriculture, Kenya*

**MONDAY | 19 JUNE**

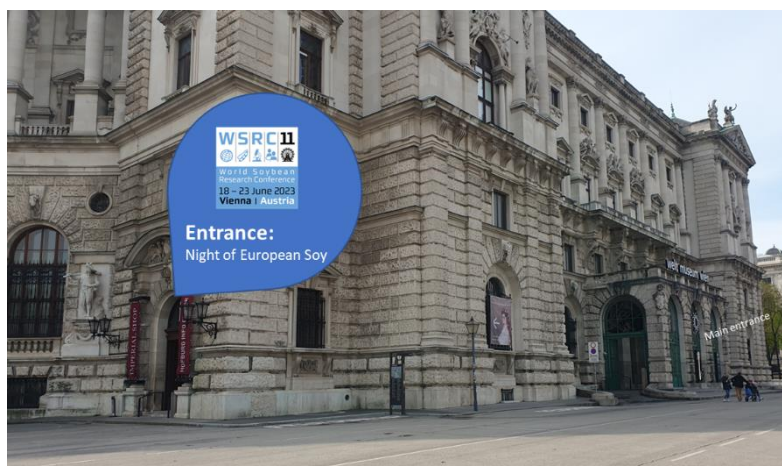
**19:00 – 22:30**

## **Night of European Soy**

The Night of European Soy will take place on Monday 19 June in the Weltmuseum, home to the oldest soybeans of Europe, located in the Imperial Palace in the center of Vienna. This evening event is dedicated to the growing market and diversity of soy-based food that are produced in Europe. Around 30 European producers will present their “soy-licious” specialities for the enjoyment of the around 300 expected participants. On top of that, a special soy-based buffet will be offered.

### **Address:**

Heldenplatz, 1010 Wien



**Entrance of the venue of the European Night of Soy (Weltmuseum)**

<b>Doors Open:</b>	17:00
<b>Welcome:</b>	19:00
<b>End:</b>	22:30

### **Tickets needed**

The European Night of Soy requires an additional ticket for entry due to limited space at the venue. Unfortunately, as of 13 June, all tickets for the event are fully booked. We apologize for any inconvenience and encourage you to reach out to the registration desk for receiving alternative recommendations.

### **Directions from WSRC 11 to ‘Weltmuseum’:**

Take metro U1 (direction Oberlaa) to Stephansplatz and take the exit “Graben”. From there it is about 850m until the venue. The download section of the WSRC 11 website provides additional guidance for the route through the city center to the venue; see QR code or link:

[www.wsrc11vienna.com/downloads](http://www.wsrc11vienna.com/downloads)

Kindly note that there is no organized transport between the venues, and attendees are responsible for their own transportation arrangements.

### **Google maps**

Follow this link to access the predefined directions on Google

Maps: <https://goo.gl/maps/yqtC8QV3TaiiM4rc6>



**Travel guidance for Vienna**  
[www.wsrc11vienna.com/downloads](http://www.wsrc11vienna.com/downloads)

## TUESDAY | 20 JUNE

08:00

**Doors Open | Registration | Poster setup**

08:30 – 10:15

### PLENARY SESSION

#### European soybean session **Hall K**

*Chair: Matthias Krön, Donau Soja, Austria*

This plenary session highlights the European footprint in the world of soy. The area of soybean in Europe is growing rapidly. However, imports remain highly relevant for resilient and sustainable supply chains in Europe. What are the special dynamics and requirements of the European soybean market? How can these be addressed? What are the relevant policies for the production and consumption of protein-rich crops? And how does all this affect global supply chains? These are just some of the topics we are going to discuss in the European Soybean Session.

#### Presentations

- **Changing protein patterns.** *Ruud Tijssens, Agrifirm, the Netherlands*
- **Production and processing of soybean in Europe.** *Leopold Rittler, Donau Soja, Austria*
- **The place of soybean in the European agricultural research system.** *Donal Murphy-Bokern, independent scientist, Germany*
- **Soybean breeding in Europe: Methods, sources and utilization.** *Jegor Miladinovic, Institute of Field and Vegetable Crops, Novi Sad, Republic of Serbia*

#### Panel discussion

- Matthias Krön, Donau Soja, Austria
- Rene van der Poel, ADM, Germany
- Will Schreiber, 3Keel, United Kingdom
- Lieven Callewaert, Collaborative Soy Initiative, the Netherlands
- Ruud Tijssens, Agrifirm, the Netherlands
- Moritz Teriete, Soy Network Switzerland, Switzerland

10:15 – 11:00

**COFFEE BREAK AND EXHIBITION**

**Hall D**

11:00 – 12:40

**PARALLEL SESSIONS AND WORKSHOPS**

11:00 – 12:40

### A3 | Genomics-assisted breeding Hall K

Chair: [Zenglu Li, University of Georgia, Athens, Georgia, USA](#). [Xia Li, Huazhong Agricultural University, Wuhan, China](#)

Advances in genomic technologies have greatly impacted plant breeding and are changing the breeding strategies used in soybean breeding. This session will include the topics on uses of genome-wide markers for genomic selection, prediction of superior crossing combinations, and characterizing soybean germplasm in applied breeding programs to improve breeding efficiency and accelerate breeding cycles.

- **Using genomic data and machine learning to accurately predict the most promising crosses for multiple key traits of interest.** *François Belzile, Laval University, Canada*
- **New technologies enabling design-centered products at Bayer.** *Benjamin B. Stewart-Brown, Bayer Crop Science, USA*
- **Applied genomics for identification of causative mutations for accelerated soybean breeding and improvement.** *Mária Škrabišová, Palacký University Olomouc, Czech Republic*
- **Genomics-enabled breeding design and selection to improve the rate of genetic gain in soybean.** *Zenglu Li, University of Georgia, Athens, GA, USA*

11:00 – 12:40

### B3 | The future of soy is food Hall G1

Chair: [Matthias Krön, Donau Soja Association, Vienna, Austria](#)

International consulting companies forecast a global decline in the consumption of animal-based food products. How will consumers and the food industry respond to the reduced role of livestock in our diets? What requirements must soybean cultivars and products meet to contribute to this change in consumption?

#### Keynote

- **Age of meat coming to an end? The future of soy is food,** *Mathilde Alexandre, ProVeg, Germany*

#### Panel discussion I: Industry & products

- Roland Snel, ADM, The Netherlands
- Thomas Landert, Wenger Manufacturing, Switzerland
- Martin Krenn, Bühler Group, Austria
- Atsuto Ono, Someno's TOFU, Japan
- Mathilde Alexandre, ProVeg International, Germany

#### Panel discussion II: Soybean outlook

- Matthias Krön, Donau Soja Organisation, Austria
- Karla Canavan, WWF USA, USA
- Anker Sørensen, KeyGene, The Netherlands
- Josef Fraundorfer, Saatbau Linz, Austria

## TUESDAY | 20 JUNE

11:00 – 12:40

### C1 | Yield and seed composition response to environment

Hall G2

Chair: [Seth Naeve, University of Minnesota, St. Paul, Minnesota, USA](#)

Soybean is the global cornerstone for vegetable protein and fats, supporting feed and food for a larger and more discerning population. Consumers demand an abundant supply of consistently high-quality soybean products. This session will focus on environmental impacts on global soybean production and composition.

- **Using on-farm research to identify highly productive regional soybean crop production systems.** *Mariana G. Borelli, Aacrea, Argentina*
- **Potential of soybean for relay cropping systems: what we know and what we don't?** *Jay-Ram Lamichhane, INRAE, France*
- **Using simple cultivar phenotyping and photothermal algorithm to explore the suitability of soybean crop in France.** *Philippe Debaeke, INRAE UMR AGIR, France*
- **Redefining soybean critical period.** *Anibal Cerrudo, University of Minnesota, USA*
- **Cropping system effects on maize and soybean yield and yield stability.** *Emerson Nafziger, University of Illinois, USA*
- **High temperature responses vary among soybean genotypes in open-air field conditions.** *Anna Locke, USDA-ARS, USA*

11:00 – 12:40

### W6 | Soy processing technologies

Room -2.31

Chair: [Werner Sitzmann, Research Institute of Feed Technology, Braunschweig, Germany](#)

It is known from practice that the quality of soybeans and soybean extraction meal can vary greatly. This applies even more so to the subsequent processing steps and their effect on quality parameters. These variations in quality are a serious challenge not only for feed production and for the resulting animal feed, but also the food industry. In this workshop, representatives from the fields of product analysis, soy treatment and plant configuration will discuss the challenges and possible solutions.

- **Soy processing technologies – How to determine the nutritional value of soybean products?** *Markus Wiltafsky-Martin, Evonik Industries, Germany*
- **Soybean processing - basics and problems from practice.** *Wolf-Carsten Wohlers, Amandus Kahl, Germany*
- **Food extrusion with soy-based materials.** *Natasa Taseski, Wenger Manufacturing, USA*
- **Overall solution approach of soy processing for feed.** *Michal Kaválek, Farnet, Czech Republic*

12:40 – 14:10

### LUNCH BREAK AND EXHIBITION

Hall D

14:10 – 15:50

### PARALLEL SESSIONS AND WORKSHOPS

14:10 – 15:50

### A4 | Seed composition Hall K

Chairs: [Kristin Bilyeu, USDA/ARS and University of Missouri, Columbia, Missouri, USA](#)  
[Jeong-Dong Lee, Kyungpook National University, Daegu, Republic of Korea](#)

The Seed Composition session will cover research to improve the quality and value of soybean seed oil and meal through changes in fatty acid composition and protein content as well as other composition improvements that may impact the plant-based protein space.

- **Fine mapping and cloning of the major seed protein locus on chromosome 20.** *Brian Diers, University of Illinois, USA*
- **Identification of a potential gene for elevating  $\omega$ -3 concentration and its efficiency for improving the  $\omega$ -6 /  $\omega$ -3 ratio in soybean.** *Jeong-Dong Lee, Kyungpook National University, Daegu, Republic of Korea*
- **Identification of the genes controlling yield and seed quality in soybean.** *Zhixi Tian, Chinese Academy of Sciences, China*
- **A single amino acid mutation in a transcriptional repressor increases oil and protein content in soybean.** *Bo Shen, Corteva, USA*
- **Differential gene expression of higher latitudes in soybean.** *Bahram Samanfar, Agriculture and Agri-food, Canada*
- **GmJAZ3 interacts with GmRR18a and GmMYC2a to regulate seed traits in soybean.** *Jin-Song Zhang, Chinese Academy of Sciences, Beijing, China*

14:10 – 15:50

### B4 | Soy protein functionality and processing Hall G1

Chair: [Leonard Sagis, Wageningen University, Wageningen, The Netherlands](#)

The protein transition from animal-based proteins to more sustainably producible plant-based proteins is currently an important theme in the field of food science & technology. Progress in this area is currently hampered by a lack of general knowledge on the link between plant-protein molecular structure and techno-functionality. Plant proteins tend to perform worse with respect to foaming, emulsifying, and gelling behavior, than the animal-based proteins they are supposed to replace, and during extraction and processing the structure of plant proteins is often significantly affected, leading to a further decrease in nutritional and functional properties. Soy protein extract is still one of the key ingredients used by the food industry for plant-based products. New plant-based products are entering the market continuously, but their development is mostly based on trial-and-error approaches, and a consistent approach to go from starting materials to products, which is robust with respect to source variations, is still missing. In this session we will focus on recent advances in establishing structure-function relations for soy and other plant-based proteins and finding optimal processing methods to obtain soy-based products with desired functionality.

- **Connecting soybean fractionation to novel food applications.** *Atze Jan van der Goot, Wageningen University, Netherlands*
- **Effects of molten-globule state and renaturation treatment on the structure and functional properties of soybean 11S Globulin.** *Na Zhang, Harbin University of Commerce, China*

- **Tackling challenges in alternative protein food formulation with a focus on improving functionality and sensory appeal.** *Roland Snel, ADM, Netherlands*
- **Traditional fermented soybean products: emphasis on processing, microbial contribution, nutritional and biological activities.** *Xin Jia, China Agricultural University, China*

**14:10 – 15:50**

**C2 | Using data-driven knowledge for profitable crop management** **Hall G2**

*Chair: Paul Esker, Pennsylvania State University, University Park, Pennsylvania, USA*

This session aims to discuss using novel experimental and data-driven approaches to identify profitable soybean systems. The session will highlight different examples currently used emphasizing collaborations with farmers. The latest methods and results from these efforts will be presented and discussed.

- **History, impact, and future of data-driven efforts to improve soybean production and management.** *Shawn Conley, University of Wisconsin-Madison, USA*
- **Modeling soybean production and management through novel, data-driven approaches.** *Spyros Mourtzinis, AgStat, Greece*
- **On-farm approaches to improving data-centric efforts to improve soybean production and management.** *Laila Puntel, University of Nebraska, USA. Laura Lindsey, The Ohio State University, USA*

**14:10 – 15:50**

**Room -2.31**

**W2 | Introduction to SoyBase (soybase.org), the soybean breeder's toolbox**

*Chair: [Rex Nelson, USDA/ARS and Iowa State University, Ames, Iowa, USA](#)*

This workshop will be an introduction to SoyBase the USDA-ARS soybean genetics and genomics database and the genomics and genetics tools available at SoyBase as well as the USDA-ARS Legume Information System (LIS) database and relevant tools.

**15:50 – 16:15**

**COFFEE BREAK** **Hall D**

**16:15 – 17:55**

**POSTER SESSION I AND INDUSTRY EXHIBITION** **Foyer D**

Posters assigned with an odd number will be presented in Foyer D.



08:00

**Doors Open | Registration | Poster setup**

08:30 – 10:15

### PLENARY SESSION

**Soy in agricultural systems**

**Hall K**

*Chair: Leopold Rittler, Donau Soja, Austria. Moderation: Helmut Gaugitsch. Head of Scientific Management Biodiversity - Environment Agency, Austria*

As the global climate and biodiversity crisis deepens, there is growing interest in more comprehensive and sustainable farming approaches such as regenerative agriculture, agroecology, and carbon farming. This plenary session will explore how soybean cultivation can fit into these systemic approaches. The session will also examine the role of markets and policies in incentivizing sustainable farming approaches, exploring regulatory and market-driven initiatives. Speakers and panelists will discuss what is perceived as beneficial by producers and the market, and how to avoid greenwashing. Join us for an engaging and informative discussion on the future of soybean cultivation in the context of sustainable agriculture.

#### Presentations

- **Potentials and challenges of regenerative farming systems for climate change adaptation in crop production.** *Gernot Bodner, University of Natural Resources and Life Sciences (BOKU), Austria*
- **Defining regenerative agriculture and opportunities for soy.** *Emily Scott, 3Keel Group Limited, United Kingdom*
- **Soybean within the no-till system: a farmers' perspective.** *Marcelo Torres, Aapresid, Argentina*

#### Panel discussion

- Marcos Lana, Swedish University of Agricultural Science, Sweden
- Iryna Brovko, Institute of Agrobiology, Ukraine
- Marcelo Torres, Aapresid, Argentina
- Gernot Bodner, University of Natural Resources and Life Sciences (BOKU), Austria
- Emily Scott, 3Keel Group Limited, United Kingdom

10:15 – 11:00

**COFFEE BREAK AND EXHIBITION**

**Hall D**

11:00 – 12:40

**PARALLEL SESSIONS AND WORKSHOPS**

## WEDNESDAY | 21 JUNE

11:00 – 12:40

### A5 | Soybean genome editing Hall K

Chair: [Robert Stupar, University of Minnesota, St. Paul, Minnesota, USA](#)

This session will focus on innovations and applications of soybean genome editing. This will include technical advances, gene discovery, and trait development.

- **Understanding nutrient uptake and resilience mechanism to water deficit conditions through gene-editing in soybean.** *Gunvant Patil, Texas Tech University, USA*
- **Accelerating gene discovery in soybean through genome editing.** *Minviluz G. Stacey, University of Missouri, USA*
- **Chromosome engineering for crop improvement.** *Sergei Svitashhev, Corteva Agriscience, USA*
- **The first two elite soybean varieties genetically edited in South America.** *Polyana Martins, GDM Seeds, Cambé, Brazil*

11:00 – 12:40

### C3 | Soil fertility and plant nutrition Hall G1

Chair: [Hong Liao, Fujian Agriculture and Forestry University, Fuzhou, China](#)

The session will address major soil and nutrition related factors determining soybean performance such as changes of soil fertility, soil health and soil sustainability in soybean field, nutrient cycling in soybean based agro-ecosystems, nutrient acquisition, translocation and/or assimilation in soybean plants, nutrient efficiency and its regulatory mechanisms in soybean, and breeding for nutrient efficient soybean varieties and its application.

- **Long-Term Corn–Soybean Rotation and Soil Fertilization: Impacts on Yield and Agronomic Traits.** *Yingdong Bi, Northeast Forestry University, Harbin, Chin, The Ohio State University, USA*
- **Influence of biological seed treatment on soybean grain yield in the U.S.** *Fabiano Colet, The Ohio State University, USA*
- **From root-associated microbes to nutrients acquisition efficiency in soybean.** *Yongjia Zhong, Fujian Agriculture and Forestry University, Fuzhou, China*
- **Critical phosphorus levels are required to optimize soybean's biological nitrogen fixation capacity.** *Hannah Walling, Lancaster University, UK*
- **The soybean sugar transporter GmSWEET6 participates in sucrose transport towards fungi during arbuscular mycorrhizal symbiosis.** *Xiurong Wang, South China Agricultural University, Guangzhou, China*

11:00 – 12:40

### D1 | New and emerging pests and diseases Hall G2

Chairs: [Tomislav Duvnjak, Agriculture Institute of Osijek, Osijek, Croatia](#)

[Tessie Wilkerson, Mississippi State University, Stoneville, Mississippi, USA](#)

This session is dedicated to new diseases and pests that appear on soybeans as a result of

changes in biotic factors, primarily climate changes to which we are exposed. The consequence of this is emerging diseases, pathogens and pests adapted to the newly created conditions, which can or do cause more and more economically significant damage.

- **Taproot decline of soybean, caused by *Xylaria necrophora*, an emerging threat to profitable soybean production in the southern United States.** *Tom Allen, Mississippi State University, USA*
- **GWAS and RNA-seq analyses to identify SNPs and candidate genes for target spot (*Corynespora cassicola*) resistance in soybean (*Glycine Max*).** *Jenny Koebernick, Auburn University, USA*
- **Integrating transgenics and native resistance for nematode management.** *Michael McCarville, BASF, USA*
- **A method to obtaining novel sources of resistance in soybean against SCN.** *Bahram Samanfar, Agriculture and Agri-food Canada, Canada*
- **Biological control of *Sclerotinia sclerotiorum* on soybean in Catamarca, Argentina.** *Juliana Bleckwedel, ITANOA-EEAOC, Tucumán, Argentina*

11:00 – 12:40

### W3 | Knowledge exchange for European soybean agronomists **Room -2.31**

*Chair: Leopold Rittler, Donau Soja, Vienna, Austria*

Reflecting the wide range of soil and climate conditions, soybean production methods vary greatly across Europe. In this workshop, representatives from the main soybean producing regions will present and discuss their local approaches, challenges and solutions. Topics addressed: tillage systems, management of weeds, pests, and disease, harvesting, etc.

#### **Regional reporters**

- David Gouache, Terres Innovia, France
- Gemini Delle Vedove, University of Udine, Italy
- Wolfgang Kastenhuber, Agricultural Chamber of Upper Austria, Austria
- Vuk Djordjevic, Institute of Field and Vegetable Crops Novi Sad, Serbia
- Iryna Brovko, Institute of Agrobiology, Ukraine

12:40 – 14:10

### **LUNCH BREAK AND EXHIBITION** **Hall D**

14:10 – 15:50

### **PARALLEL SESSIONS AND WORKSHOPS**

14:10 – 15:50

### **A6 | Breeding for abiotic stress and climate change** **Hall K**

*Chair: [Volker Hahn, University of Hohenheim, Stuttgart, Germany](#)*

Future soybean production depends on the ability of soybean varieties to adapt to climate

change. In this session, we will discuss breeding for the associated abiotic stressors such as drought, heat, flooding or increased solar radiation.

- **Genomic regions associated with C13 ratio and plasticity for improving water use efficiency in soybean.** *Larry Purcell and Jason Gillman, University of Arkansas, USA*
- **Adaptation of European cultivars to severe drought and moisture-favourable conditions.** *Danielle Cavalli, Council for Agricultural Research and Economics, Italy*
- **GWAS analysis reveal key loci associated with drought and water logging tolerance and root trait architecture in soybean.** *Milind Ratnaparkhe, Indian Institute of Soybean Research, India*
- **Legume biotechnology-reducing impact of climate change on soybean.** *Prem Bhalla, University of Melbourne, Australia*
- **Genetic diversity of heat stress tolerance in soybean.** *Liza van der Laan, Iowa State University, USA*

14:10 – 15:50

### B6 | Assessing sustainability of soybean supply chains Hall G1

Chairs: [Thomas Nemecek, Agroscope, Life Cycle Assessment research group, Zurich, Switzerland](#); [Werner Zollitsch, University of Natural Resources and Life Sciences \(BOKU\), Vienna, Austria](#)

The sustainability of soybean supply chains depends on where and how soybean is grown and how it is used. We welcome contributions assessing one or several dimensions of sustainability along the supply chain including crop production, use in animal and human nutrition, and co-products applying different systems approaches.

- **Sustainability assessment of soybean supply chains: concepts, methods and insights.** *Thomas Nemecek, [Agroscope, Life Cycle Assessment research group, Zurich, Switzerland](#); Werner Zollitsch, University of Natural Resources and Life Sciences (BOKU), Vienna, Austria*
- **Environmental impact of soybean products in the GFLI database.** *Mike van Paassen, Blonk Sustainability, Netherlands*
- **Disclosure of certified Donau Soja/Europe Soja soybean cultivation datasets.** *Davide Lucherini, Blonk Sustainability, Netherlands*
- **Carbon footprint of soybean crops associated with different agronomic management in the province of Tucumán (Argentina) between 2018 and 2021.** *Daniela Rossana Pérez, Estación Experimental Agroindustrial "Obispo Colombres" (EEAOC), Las Talitas, Argentina*
- **The role of soybean for re-designing European cropping systems.** *Marjana Vasiljevic, Institute of Field and Vegetable Crops, Novi Sad, Serbia*

14:10 – 15:50

### D2 | Strategies for disease, pest and weed control Hall G2

Chair: [Yuanchao Wang, Nanjing Agricultural University, Nanjing, China](#)

Diseases, pests and weeds are important factors limiting soybean production. This section focusses on the molecular mechanisms by which diseases, pests or weeds cause damage on

soybean, soybean resistance, as well as developed control measures.

- **The mining of soybean broad-spectrum resistance genes.** *Yuanchao Wang, Agricultural University, China*
- **A new distinct geminivirus causes soybean stay-green disease.** *Yi Xu, Nanjing Agricultural University, China*
- **A Faboideae-specific floral scent betrays seeds to unimportant pest.** *Hao Xu, Nanjing Agricultural University, China*
- **Bio-based solutions: Reducing ecotoxicological impact in soybean cultivation.** *Agustín Biagioni, Rizobacter, Argentina*

**14:10 – 15:50**

### **W4 | Science for Success: A model program for applied research and extension outputs**      **Room -2.31**

Chair: [Rachel Vann, North Carolina State University, Raleigh, North Carolina, USA](#)

The [Science for Success](#) project has evolved into a high functioning engine delivering data-driven best management practices (BMP's) to U.S. soybean farmers. The Science for Success team is composed of soybean Extension personnel from across the U.S. who serve more than 90% of U.S. soybean acres that collaboratively investigate BMP's and subsequently disseminate gleaned information using diverse outreach strategies including partners such as SRIN, CPN, and the U.S. Soybean Research Collaborative (USSRC). This team leverages QSSB funding and other funding sources (ie USDA-NIFA) to support common-theme localized research efforts needed to generate data-derived BMP's. We seek USB funding through the proposed project to support subsequent collaborative Extension efforts. This project then generates Extension publications, social media campaigns, videos, and webinars that will deliver BMP's to U.S. soybean farmers. In this workshop, we will discuss the key components that have made Science for Success effective and dive into lessons learned. Core topics of focus will include conducting effective collaborative research, delivering recommendations using diverse outreach strategies, and the mentorship value of this initiative for junior faculty and graduate students.

#### **Presenters**

- Shawn Conley, University of Wisconsin-Madison, USA
- Laura Lindsey, Ohio State University, USA
- Jeremy Ross, University of Arkansas, USA
- Seth Naeve, University of Minnesota, St. Paul, Minnesota, USA

**15:50 – 16:15**

### **COFFEE BREAK**      **Hall D**

**16:15 – 17:55**

### **POSTER SESSION II AND INDUSTRY EXHIBITION**      **Foyer D**

Posters assigned with an even number will be presented in Foyer D.

08:00

Doors Open | Registration

08:30 – 10:15

## PLENARY SESSION

### Regional soybean reports **Hall K**

Chair: [Ricardo Vilela Abdelnoor, Embrapa, Londrina, Paraná, Brazil](#)

Representatives from different soybean growing regions will address latest developments and problems of soybean production and utilization. The session will include speakers from regions or individual countries covering North America, Central and South America, Continental Asia, Africa, Europe, Australia as well as Asian and Oceanian Island countries.

#### **North America**

- **Regional report Canada.** *Nicole Mackellar, Soy Canada, Ontario, Canada*
- **Regional report United States.** *Brian Diers, University of Illinois, Urbana, Illinois, USA*

#### **South America**

- **Regional report Argentina.** *Rodolfo Rossi, ACSOJA – Argentine Soybean Chain Association, Santa Fe, Argentina*
- **Regional report Brazil.** *Decio Gazzoni, Embrapa, Londrina, Brazil*

#### **Asia and Africa**

- **Regional report East Asia & Australia.** *Tianfu Han, Chinese Academy of Agricultural Sciences, China*
- **Regional report India & Africa Report.** *Gyanesh Kumar Satpute, ICAR-Indian Institute of Soybean Research, India*

10:15 – 11:00

## COFFEE BREAK AND EXHIBITION **Hall D**

11:00 – 12:40

## PARALLEL SESSIONS AND WORKSHOPS

11:00 – 12:40

### A7 | Germplasm collections and evaluation **Hall K**

Chair: [Li-Juan Qiu, Chinese Academy of Agricultural Sciences \(CAAS\), Beijing, China](#); [Qijian Song, Beltsville Agricultural Research Center USDA-ARS, USA](#)

The collection and evaluation of soybean germplasm plays a vital role on enhancing both yield

and quality, as well as promoting tolerance to biotic and abiotic stress factors. This session will highlight on the innovative evaluation methods and tools, genetic diversity on omics levels, and exciting prospects of utilization of favorite trait or gene for genetic research and breeding in soybean.

- **Building bridge between genomics and phenomics: discovering favorite alleles of Chinese soybean collections for breeding.** *Lijuan Qiu, Institute of Crop Sciences, CAAS, China*
- **Allele mining for yield and agronomic traits using a givers GWAS panel made up of modern Canadian and Chinese cultivars and the progeny of their crosses.** *Istvan Rajcan, University of Guelph, Canada*
- **Genetic diversity in early maturity Chinese and European elite soybeans: A comparative analysis.** *Xindong Yao, University of Natural Resources and Life Sciences, Vienna, Austria*
- **Development of genotyping tools for soybean germplasm genetic research.** *Qijian Song, Beltsville Agricultural Research Center USDA-ARS, USA*

11:00 – 12:40

### C4 | Soybean rhizosphere and nitrogen fixation Hall G1

Chair: [Angela Sessitsch, AIT Austrian Institute of Technology, Tulln, Austria](#)

In this session we will address beneficial interactions between soybean and associated microorganisms. This includes the symbiosis with nodule-forming and nitrogen-fixing rhizobia, but also with microorganisms providing other benefits such as nutrient mobilisation or increased stress tolerance and pathogen control.

- **Ecology, functions and application of (soybean) seed endophytes.** *Angela Sessitsch, AIT Austrian Institute of Technology, Austria*
- **Catching rhizobia to introduce high protein containing soybean for a sustainable agriculture in Europe.** *Sofie Goormachtig, University Gent, Belgium*
- **How additional inoculation can improve N<sub>2</sub> fixation and yield in soybean under field conditions in Denmark.** *Juliana Martins, Aarhus University, Denmark*
- **Keeping bradyrhizobia inoculant high quality standards: a challenge for French farmer organizations and French research bodies, inside Europe.** *Xavier Pinochet, Terres Innovia, France*
- **Genetic diversity and symbiotic effectiveness of indigenous root nodulating bacteria associated with soybean in Benin (West Africa).** *Brice Gildas Sinhouenon, UCLouvain, Belgium*
- **Core rhizosphere microbiota is associated with nutrient cycling in field-grown typical soybean varieties.** *Tianshu Wang, Chinese Academy of Agricultural Sciences, China*

11:00 – 12:40

### D3 | Advanced tools and sensors for soybean protection Hall G2

Chair: [Asheesh K. Singh, Iowa State University, Iowa, USA](#)

This session will showcase exciting avenues in stress and plant phenotyping using advanced tools and sensors; and include advances in sensing, modeling and actuation using the cyber-

physical systems loop, use of smartphone and web-apps, and advances in computer vision, machine learning and artificial intelligence for stress related research and production.

- **Cyber-agricultural systems for crop production.** *Asheesh K. Singh, Iowa State University, USA*
- **Citizen science: Shaping the future of AI applications in agriculture.** *Arti Singh, Iowa State University, USA*
- **UAS longitudinal phenotypes to measure and select soybean stress resilience.** *Katy Rainey, Purdue University, USA*
- **Ground versus aerial herbicide applications: spray drift, soybean impacts, and regulatory implications.** *Thomas Butts, University of Arkansas, USA*
- **Method for detecting datura in high-resolution UAV images of soybean fields.** *Peter Riegler-Nurscher, Josephinum Research, Austria*
- **Listening to insects: using microphones and deep learning algorithms to monitor soybean pests.** *Emily Bick, University of Wisconsin, USA*

12:40 – 14:10

### LUNCH BREAK AND EXHIBITION

Hall D

14:10 – 15:50

### PARALLEL SESSIONS AND WORKSHOPS

14:10 – 15:50

#### A8 | Breeding for biotic stress Hall K

Chair: [Istvan Rajcan, University of Guelph, Guelph, Canada](#); [Khalid Meksem, Southern Illinois University, USA](#)

The session will cover current topics in breeding soybean for resistance to insects, nematodes and fungal diseases.

- **New molecular tools for breeding *Phytophthora sojae* resistance in soybean.** *Richard Bélanger, Laval University, Quebec, Canada*
- **Synergistic R gene interactions in gene pyramids enhance resistance to soybean aphids.** *Gustavo Macintosh, Iowa State University, USA*
- **Breeding for resistance to soybean diseases in Michigan.** *Dechun Wang, Michigan State University, USA*
- **Integrating transgenic and native resistance for nematode management.** *Geeta Menon, BASF, USA and Michael McCarville, BASF, USA*

14:10 – 15:50

#### C5 | Seed production, vigor and technology Hall G1

Chairs: [Julia Buitink, INRAE and Institute of Horticulture and Seeds, Angers, France](#). [Michael](#)



[Gohn, Euroseeds, Brussels, Belgium and Probstdorfer Saatzucht, Vienna, Austria](#)

Producing highly vigorous soybean seeds is a key lever to increase crop production efficiency. This session will address recent research and technological advances underlying the production of high quality seeds for fast and homogenous seedling establishment, both from a preharvest and post-harvest perspective.

- **Molecular understanding of seed vigour acquisition during maturation.** *Julia Buitink, INRAE, France*
- **Exploiting genetic diversity of an early maturity GWAS collection to improve seedling establishment.** *Olivier Leprince, L'institut Agro Rennes Angers, France*
- **Improvement of soybean emergence by pre-treatment with biostimulants.** *Jean-Christophe Avice, Université de Caen Normandie, France*

14:10 – 15:50

### D4 | Managing disease, pest and weed resistance **Hall G2**

Chair: [Daniel Ploper, Estación Experimental Agroindustrial Obispo Colombres, Tucumán, Argentina](#)

Application of pesticides is a common strategy used to effectively reduce biotic stresses in soybean crops. However, multiple factors contributed to the appearance of biotypes of weeds, insects, and pathogens which have evolved resistance to these chemicals. In this session we will focus on the impact of these resistant biotypes and on the main management strategies recommended to reduce their impact on soybean yields.

- **Documenting fungicide resistance in the southern United States: A continuing series of surveys from Mississippi.** *Tom Allen, Mississippi State University, USA*
- **Herbicide resistant weeds in South America.** *Fernando Adegas, Embrapa, Brazil*
- **Fungicide resistance in *Cercospora sojina*, causal agent of frogeye leaf spot: Detection and management in the USA.** *Carl Bradley, University of Kentucky, USA*
- ***In vitro* sensitivity of *Corynespora cassiicola* isolated from soybean to different chemical fungicides in northwestern Argentina.** *Sebastian Reznikov, Estación Experimental Agroindustrial Obispo Colombres (EEAOC) e Itanao, Argentina*

14:10 – 15:50

### W5 | Advanced genotyping and phenotyping for organic soybean breeding (ECOBREED project) **Room -2.31**

Chair: [Vuk Djordjevic, Institute of Field and Vegetable Crops, Novi Sad, Serbia](#); [Uroš Žibrat, Kmetijski inštitut Slovenije, Ljubljana, Slovenia](#)

Two student workshops on advanced genotyping and phenotyping will be held within a special WSRC11-ECOBREED cooperation. The workshop is intended for students who are interested in organic production and breeding. ECOBREED will develop methods, strategies and infrastructures for organic breeding, varieties with improved stress resistance, resource use efficiency and quality and improved methods for the production of high-quality organic seed.

18:30 – 22:00

## Gala evening

In addition to the scientific program, the WSRC11 aims to build a platform for broadening our social networks and friendships. Therefore, we invite you to register for the gala evening in one of the most unique and historically important buildings in Vienna – the City Hall. There, traditional Austrian cuisine will await our guests, accompanied by a glass of wine and coffee or tea, giving the participants time to connect and mingle. The event will take place in the prestigious festive hall, which was the biggest hall in the whole country in the late 19<sup>th</sup> century.

18:30-22:00

**Venue:** Vienna City Hall

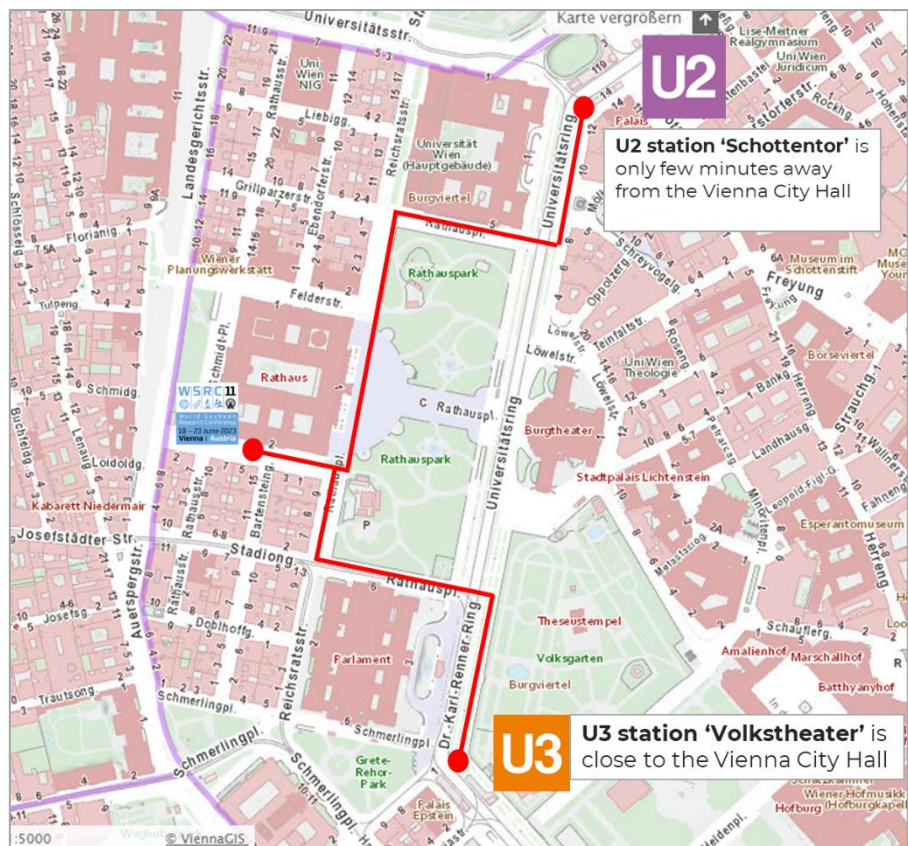
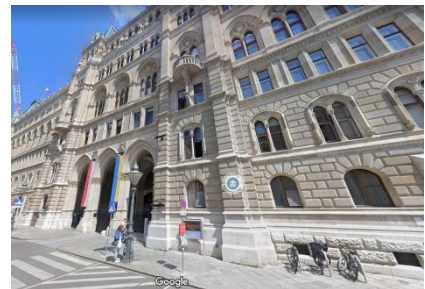
**Address:** Lichtenfelsgasse 2 (entrance)

### How to get there

The Vienna City Hall is centrally located and is close to several metro stations. It is in a convenient walking distance of about 10-15 minutes from the U3 station 'Volkstheater' or the U2 station 'Schottentor'. (see map). Entrance to the venue is in Lichtenfelsgasse 2 (see photo)

Kindly note that there is no organized transport between the venues, and attendees are responsible for their own transportation arrangements.

Additional guidance for the Vienna public transportation system is available on the WSRC 11 website (see QR-code and link below).



Travel guidance for Vienna

[www.wsrc11vienna.com/downloads](http://www.wsrc11vienna.com/downloads)

## FRIDAY | 23 JUNE

Please note the respective excursion program. Excursions will take place on Friday, 23 June and will be to:

- **Joint FAO/IAEA Division**, Seibersdorf Laboratories, Plant Breeding Unit
- **Organic soybean production** (Esterhazy estate)

You can find more info on the excursions - click here for information on [technical excursions](#) and click here for information on [tours in and around Vienna](#).

## SOYBEAN LIFETIME ACHIEVEMENT AWARDS

The World Soybean Research Conference 11 is recognizing outstanding achievements in soybean research to the following award-winning individuals from the different WSRC regions:

Region I

**Thomas E. Carter, Jr.**

**Randall L. Nelson**

Region II

**Ademir Henning**

**Eligio Morandi (in memoriam)**

Region III

**Ruzhen Chang**

**Philips Varghese (in memoriam)**

Region IV

**Keisuke Kitamura**

**Arnold Schori**

## SOYBEAN LIFETIME ACHIEVEMENT AWARDS

### Region I: **Thomas E. Carter, Jr.**



Dr. Thomas Carter, former Research Leader & Research Geneticist, USDA-ARS and Professor at North Carolina State University, has made significant contributions to the field of soybean breeding and genetics, with a career spanning over four decades. Throughout his tenure, Dr. Carter has published 170 scientific papers and released 66 soybean varieties/germplasm, making him a prominent figure in the field. Dr. Carter is a highly recognized leader in genetic diversity. His 113-page monograph on the subject is the first comprehensive review of diversity in soybean. He was the first to show evidence that advancements in U.S. soybean breeding was limited due to insufficient genetic

diversity. His findings revealed that the common practice of mating closely related varieties was creating a genetic bottleneck. To address this issue, Dr. Carter spearheaded research efforts to incorporate Asian varieties into breeding programs, tapping into a reservoir of yield genes. This initiative resulted in a significant shift among U.S. soybean breeders, leading to the development of high-yielding lines, some of which are among the highest yielding lines in the South. Dr. Carter's contributions extended beyond genetic diversity. He discovered the first field-proven drought-tolerant soybean and successfully utilized it to produce drought-tolerant progeny. This breakthrough led to the release of N8002, the first cultivar with drought tolerance traits. Additionally, Dr. Carter made important discoveries and validations of QTLs associated with the slow-wilting trait, bridging theoretical science with applied field research. Recognized for his outstanding achievements, Dr. Carter was named the USDA South Atlantic Scientist of the Year in 2010. His research paper defining and describing the genetic base of North American soybeans ranks among the top 10 most cited papers in Crop Science. Beyond his research, Dr. Carter has been a dedicated educator and mentor of 14 graduate students and 13 postdocs. Dr. Thomas Carter's contributions have significantly impacted soybean research and breeding efforts.

*(Istvan Rajcan and Zenglu Li)*

## SOYBEAN LIFETIME ACHIEVEMENT AWARDS

### Region I: **Randall L. Nelson**



Dr. Randall Nelson, a former Supervisory Research Geneticist and Curator of the USDA Soybean Germplasm Collection, research leader at Agricultural Research Service (USDA-ARS) and professor at University of Illinois, made extraordinary contributions to the field. During his 28-year tenure, he significantly expanded the collection from 12,964 to 22,232 accessions and successfully merged the Northern and Southern Collections in 1991. Dr. Nelson introduced computerization to the collection's operations, greatly enhancing efficiency. His leadership and vision led to the establishment of a core collection, enabling researchers to focus their studies. He pioneered the use of DNA markers to evaluate germplasm and played a crucial role in characterizing 20,087 annual accessions with SoySNP50K

chips, marking the first extensive genotyping of a major collection. Dr. Nelson's efforts made the USDA Soybean Germplasm Collection the most thoroughly documented and widely utilized collection worldwide. He excelled in utilizing exotic germplasm in breeding, driving the modern breeding efforts to enhance yield. As a result, 75% of public breeders and major commercial companies employ lines developed by him. His work is vital to the soybean industry, as the current gene pool relies heavily on only 30 ancestors, resulting in limited genetic diversity and impeding genetic improvement. Dr. Nelson's innovative approaches led to the release of 22 high-yielding lines derived from 30 accessions, profoundly impacting commercial soybean breeding in the United States. Furthermore, he explored the potential of perennial Glycine species and wild soybean in developing experimental lines that outperformed their soybean parent. Dr. Nelson's contributions to genetic diversity research are reflected in his 145 refereed articles and 5 book chapters. In summary, Dr. Randall Nelson's leadership, creativity, and innovative use of germplasm have made a significant and lasting impact on soybean breeding and genetic diversity research.

*(Istvan Rajcan and Zenglu Li)*

### Region II: **Ademir Henning**



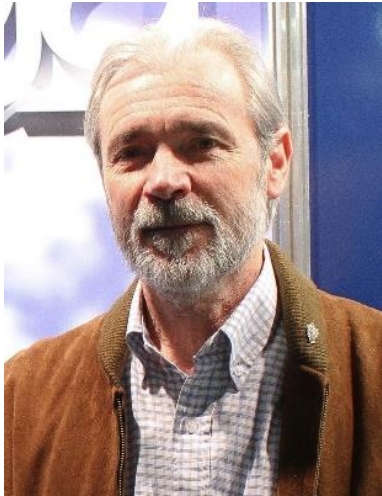
Dr. Ademir Henning, an accomplished Agricultural Engineer, has made significant contributions to soybean seed and plant pathology in Brazil. Graduating from the Federal University of Paraná, Brazil, in 1973, he pursued further education, earning a Master's degree in Phytopathology from Mississippi State University and a Ph.D. from the University of Florida in the field of soybean seed pathology. Dr. Henning began his career overseeing improved soybean seed production in Paraná in 1974 and joined EMBRAPA (Brazilian Agricultural Research Corporation), a renowned research organization, in 1976. From 1979 until his retirement in 2023, he developed important research projects and coordinated the Seed

Pathology Laboratory at Embrapa Soja in Londrina, Paraná. Throughout his career, Dr. Henning conducted impactful research, leading to key public policies such as the official recommendation of fungicide for soybean seed treatment. Additionally, he played a pivotal role in modifying legislation by developing an alternative packaging for soybean seed storage, permitting the use of braided polypropylene (raffia) bags for seed storage and commercialization. Dr. Henning has been an active advocate of technology transfer, dedicating himself to the training and development of soybean seed professionals and students through the "DIACOM" course. Over the course of his career, he facilitated an impressive 71 theoretical and practical training courses on tetrazolium tests and seed pathology, both nationally and internationally. Dr. Henning's expertise extends to publishing scientific articles, documents, books, and book chapters on seed pathology and treatment. He mentored many undergraduate and graduate students in the field, fostering the next generation of experts. Recognized for his leadership, Dr. Henning actively participated in various soybean seed organizations, including serving as President of the Brazilian Association of Seed Technology (ABRATES) for two terms and holding positions in state and national commissions and sub-commissions related to soybean seeds.

*(Ricardo Abdelnoor)*

## SOYBEAN LIFETIME ACHIEVEMENT AWARDS

### Region II: **Eligio Morandi (*in memoriam*)**



Eligio Natalio Morandi, born in 1946 in Cañada Rosquin, Argentina, was a prominent figure in the field of Plant Physiology. He obtained his degree from the Faculty of Agronomy at the National University of La Plata and later joined the Faculty of Agricultural Sciences at the National University of Rosario, where he dedicated his entire teaching and research career to the Plant Physiology Department. He furthered his studies at Michigan State University. Throughout his career, Eligio demonstrated a strong commitment to mentoring. He trained and supported over twenty researchers, interns, and graduate students, providing them with knowledge, ideas, equipment, and manuscript reviews. He played a guiding

and supportive role in their development, leaving a lasting impact on their paths. Eligio achieved national and international recognition in Plant Physiology. He served as Principal Researcher of the National Science and Technology Research Council (CONICET) and held positions as president and vice president of the Argentine Society of Plant Physiology. He authored and coauthored numerous articles published in prestigious journals and actively participated in conferences and scientific congresses. His academic focus centered on the ecophysiology of soybean. He was a founding member of PROSOJA, an organization that brought together soybean breeders and researchers in Argentina. Additionally, he played a crucial role in the Argentine Soybean Chain Association (ACSOJA) and represented Region II in the WSRC Continuing Committee. Beyond his professional accomplishments, Eligio was known for his loyalty and unpretentious personality. He approached research projects with unwavering optimism and determination, consistently overcoming obstacles. He had a remarkable ability to convince others that what seemed impossible could be achievable. Eligio's impact extended beyond academia; he was a true friend to those around him. Those fortunate enough to have worked alongside him cherish his legacy as a university professor who nurtured intellectual growth. He remained dedicated to his work until the end, and his presence and legacy will endure, transcending physical boundaries and defying reality itself.

*(Daniel Ploper and Julio Ferrarotti)*



## SOYBEAN LIFETIME ACHIEVEMENT AWARDS

### Region III: **Ruzhen Chang**



Professor Ruzhen Chang, the former director of the Soybean Specialty Committee in the Crop Science Society of China and a professor with the Chinese Academy of Agricultural Sciences, made a great contribution to the research of soybean germplasm resources. He organized the collection of more than 5,000 wild soybean resources, which deepened the research on wild soybeans in China. He put forward a plan for the collection, preservation, and evaluation of more than 20,000 cultivated soybeans in China and introduced over 1,000 isogenic lines and genetic materials from other countries, making China the largest preservation country of soybean germplasm resources in the world. Professor Chang guided the establishment and

utilization of the Chinese soybean core collection, which promoted the construction of the first wild soybean pan-genome and the excavation of a number of genes related to important traits. He also devoted himself to the innovation of soybean germplasm resources and created a number of elite lines and varieties with excellent characteristics. The soybean variety Zhongpin 661, which he created, has become the core ancestral parent in the soybean breeding program of the Huang Huai Region in China and has contributed to the development of more than 19 excellent new varieties. Professor Chang has won more than ten national and provincial awards, published 10 book chapters, and authored more than 100 research papers in peer-reviewed journals over the last 45 years.

*(Xiaobing Liu)*

## SOYBEAN LIFETIME ACHIEVEMENT AWARDS

### Region III: **Philips Varghese (*in memoriam*)**



Dr. Philips Varghese, a Soybean Breeder and Scientist-D at MACS - Agharkar Research Institute in Pune, Maharashtra, India, has devoted his career to soybean research. After receiving his post-graduate degree in 1982 from Savitribai Phule Pune University, Pune, he began his career in the Department of Genetics and Plant Breeding at Agharkar Research Institute, Pune - a renowned institute under the Department of Science & Technology, Government of India. He was awarded a Ph.D. degree in Botany as an in-service candidate in 1994 from the same University. He has worked on many crops such as wheat, sunflower, gram, winged bean, and French bean, among others. Later, he focused on breeding soybeans for high yield, disease

resistance, oil content, and heat insensitivity. During his tenure, he handled five major projects on soybean crop improvement. He developed and released seven high-yielding, disease-resistant, and non-shattering types of soybean varieties suitable for mechanical harvest. Some of his developed varieties include the high-yielding and popular 'MACS 1188', the drought-tolerant 'MACS 1281', the early-maturing, widely adaptable, and high-yielding 'MACS-1460' and 'MACS-1520', and the high-yielding, non-shattering variety 'MACS-1520' for the Central Zone of India. Recently, he successfully used molecular marker-assisted breeding to develop and release the next generation soybean variety 'MACSNRC1667', which is trypsin-free, benefiting both farmers and the soy-food industry. These varieties have been released for cultivation throughout India, leading to the popularization of soybean among farmers, and are being cultivated by farmers with high demand for their seeds every year. He was involved in the collection, evaluation, and management of soybean germplasm, as well as the production of quality nucleus and breeder seeds of soybean for supply to seed multiplying organizations in India.

*(Gyanesh Kumar Satpute)*

## SOYBEAN LIFETIME ACHIEVEMENT AWARDS

### Region IV: **Keisuke Kitamura**



Dr. Kitamura is a soybean researcher who worked at Iwate University, the Agricultural Research Center of the Ministry of Agriculture, Forestry, and Fisheries, and the National Institute of Crop Science, NARO, before becoming a professor at Hokkaido University in 2003. In the 1980s and 1990s, he worked on improving soybean proteins at Iwate University and the Agricultural Research Center. As a result, he discovered many protein mutants, including a soybean lipoxygenase deletion mutant, and elucidated their inheritance patterns. He also bred a soybean cultivar called "Yumeyutaka," which lacks two of the three soybean seed lipoxygenases, and succeeded in producing soy milk without the beany flavor for the first

time in the world. The results of this research later led to the creation of the first soybean deficient in all lipoxygenases. In addition to his work on protein improvement, he has also led research on soybean isoflavone. He found that seed isoflavone content varies among varieties and that isoflavone content varies significantly with temperature during the ripening period. His findings provide the theoretical basis for producing soybeans with high isoflavone content in cold climates. Furthermore, he worked at Hokkaido University to improve the functional components of soybeans, finding genetic resources with high  $\alpha$ -tocopherol and lutein content and elucidating their mode of inheritance. Inspired by his work, many researchers around the world are now working on improving the composition of soybeans. By improving their composition, the uses of soybeans are expected to expand dramatically and contribute to improving the quality of human life. He retired from Hokkaido University in 2010, but his students and associates are now at the core of soybean research worldwide.

*(Makita Hajica)*

### Region IV: **Arnold Schori**



Dr. Arnold Schori has made valuable contributions towards a better adaptation of early maturity soybeans to Central European growing conditions. Arnold Schori was born in Switzerland in 1957. He received his PhD from ETH Zurich (Swiss Federal Institute of Technology in Zurich), Switzerland in 1994. His doctoral research focused on the contribution of genetic improvement to increasing cold (chilling) tolerance of soybean during the reproductive stage. Dr. Schori successfully identified genotypes capable of compensating for the loss of flowers and small pods after a cold spell through a reduced abscission rate and asynchronous development of lateral racemes. He demonstrated that the asynchronous blooming type is

closely linked with tawny pubescence. This discovery led to the establishment of an effective system for selecting soybean varieties with cold stress tolerance. From 1985 onward, Arnold Schori worked in soybean breeding at Agroscope, the Swiss Confederation's center of excellence for agricultural research, located in Changins. Throughout his professional career, he had various responsibilities, including wheat and triticale breeding, as well as genetic resources management. Despite these additional duties, Dr. Schori managed to maintain a successful soybean breeding program that was originally initiated by Nestlé in 1981 in response to the global protein crisis of the 1970s. The program utilized starting materials that were partly sourced from Canada and Sweden which had their origins in far east Russia, where they had been adapted to the challenging conditions of Sakhalin, Hokkaido and Kourils, some west Pacific islands. Dr. Schori's soybean cultivars, characterized by their productivity and early maturity, have significant relevance in many high-latitude countries such as France, Germany, Poland, Austria, Switzerland and others. He also worked on soybean food quality and developed cultivars with reduced lipoxygenase activity for improved taste of soy-food products. His cultivars have made a substantial contribution to the development of soybean production and adaptation in central Europe and beyond. Furthermore, his selection methods for cold tolerance could potentially serve as a model for future approaches to developing abiotic stress tolerance, such as drought or heat tolerance.

*(Johann Vollmann and Claude-Alain Bétrix)*

## **WSRC CONTINUING COMMITTEE**

The Continuing Committee for the World Soybean Research Conference (WSRC) is comprised of soybean scientists from four regions of the world for a two-conference term plus the past Chairman. Two members from each region are elected at each conference.

### **Chair of the WSRC Continuing Committee**

Ricardo Vilela Abdelnoor,  
Brazilian Agriculture Research Corporation (Embrapa Soja), Londrina, PR, Brazil

### **REGION I - USA and Canada**

Randall Nelson | USDA-ARS, Urbana, IL, USA  
Zenglu Li | University of Georgia, Athens, GA, USA  
Istvan Rajcan | University of Guelph, Guelph, Canada  
Lorna Woodrow | Agriculture and Agri-Food Canada, Harrow, Canada

### **REGION II - México, Central America, South America, and the Caribbean Islands**

Ricardo Vilela Abdelnoor | Brazilian Agriculture Research Corporation (Embrapa Soja), Londrina, PR, Brazil  
Alexandre Jose Cattelan | Brazilian Agriculture Research Corporation (Embrapa Soja), Londrina, PR, Brazil  
Eligio N. Morandi | Universidad Nacional de Rosario, Cordoba, Argentina  
Julio Ferrarotti | Haziak, Rosario, Argentina

### **REGION III - Continental Asia (Bangladesh, Burma, Cambodia, India, Nepal, Laos, Malaysia, Pakistan, Thailand, Vietnam, China, North and South Korea)**

Philips Varghese | Agharkar Research Institute (MACS), Maharashtra, India)  
Wenbin Li | Northeast Agricultural University, Harbin, China  
Xiaobing Liu | Northeast Institute of Geography and Agroecology, Harbin, China  
Deyue Yu | Nanjing Agricultural University/National Center for Soybean Improvement, Nanjing, China

### **REGION IV – Africa and adjacent Island countries, Indonesia, Europe, Middle East, Oceania, Philippines, Sri Lanka, Australia, New Zealand, Japan, Russia and East European countries**

Makita Hajika | NARO institute of Crop Science, Tsukuba, Japan  
Monique Berger | Université de Toulouse, Toulouse, France  
Gerhard Jan Hendrik Scholtemeijer | Protein Research Foundation, Rivonia, South Africa  
Willem Engelbrecht | K2 Seed Marketing, South Africa

### **Past Chair of the WSRC Continuing Committee**

Leonardo Daniel Ploper,  
Estación Experimental Agroindustrial Obispo Colombres (EEAOC), Tucumán, Argentina



GDM began in 1982, in Argentina, as a family-owned company. Since then, we have been driven by a great passion for agriculture. In early 2000, GDM expanded to Brazil, and in 2008, launched our genetic breeding program in the U.S. Today, GDM operates in 15 countries, with expansion projects in S. Africa, China and Europe. We have 16 breeding stations globally, 700 testing locations and we test more than 1.5 million plots per year.

At GDM, we invest 25% of our revenue in research and development because that is where the product performance begins. Our products are selected after years of testing and comparison with the best performing products of other genetic developers. GDM has an independent breeding strategy, which means that we can develop products within various technologies owned by different companies. Globally, we are breeding in approximately 15 different technologies. GDM is a leader in offering product selection technology to seed partners.

Around the globe, more than 41% of the world's soybean acres contain GDM genetics. We are the choice of growers who seek high productivity and yield performance in the field. We remain attentive to the evolving market needs, powered by agile innovation, focused on genetics and passionate about what we do. For us, being a part of agriculture's evolution is more than just a job; it is our purpose.

As a family-owned soybean genetics company, we value close relationships with our partners to meet growers' unique regional needs. We treat our customers and partners like family, and we operate with the spirit of support and enthusiasm for everyone in our work-family to succeed. We sit down, have conversations like old friends, and talk about pain points and solutions. Our partners are people with families, farms, and a passion for ag, just like us. We are flexible and nimble. We uniquely blend this family-style culture with proven, global technologies, which makes us who we are: A soybean genetics powerhouse.



This year, United Soybean Board (USB) is investing \$37 million in soybean research. Several researchers currently funded by USB are attending with you! Look for sessions by Robert Stupar, Carl Parsons, Seth Naeve, Henry Nguyen, Zenglu Li & Rachel Vann. Also, connect with Jack Cornell (USB staff) who plays a key role in the Farmers for Soil Health initiative.



We are a leading agricultural microbiology company that has been dedicated to researching, developing, and commercializing innovative and environmentally friendly solutions for crop production since 1977. Our commitment to sustainable agriculture has allowed us to become a trusted partner for farmers around the world who are seeking to improve their yield while reducing their environmental impact. Today, we are part of NASDAQ-traded Bioceres Crop Solutions, which partners with farmers in the transition of agriculture towards carbon neutrality.

With our head office located in Argentina, we have a global reach that extends to farmers in over 45 countries through our eight subsidiaries located in the USA, France, South Africa, Uruguay, Paraguay, Colombia, Brazil, and Bolivia. We believe that by partnering with local experts, we can better understand the unique needs of farmers in different regions and provide tailored solutions that work.

We offer a range of product lines to help farmers improve crop yield and quality while promoting sustainable practices. Our crop nutrition line includes inoculants, biofertilizers and specialty fertilizers, which help to improve soil health and plant nutrition. Meanwhile, our crop protection line includes biofungicides, bionematicides, bioinsecticides, bioherbicides, baits for pest control, post-harvest and adjuvants, which help to protect crops from pests and diseases without harming the environment. Moreover, our crop health line offers biostimulants and stress reduction technologies.



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### **Wintersteiger**

WINTERSTEIGER AG is an international machine and plant engineering group with the 4 divisions SPORTS, SEEDMECH, WOODTECH and METALS. The headquarters in Ried im Innkreis, 15 subsidiaries and 60 representative offices supply a total of 130 countries. The company employs around 1200 people worldwide.



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**WSRC 11**

World Soybean  
Research Conference

18 – 23 June 2023  
**Vienna | Austria**

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4773 Eggerding  
Austria  
[sales@biso.at](mailto:sales@biso.at)

*Universal headers for combine, Harvesting Technology Firm*



### Corteva

9330 Zionsville Road  
Indianapolis, IN 46268  
United States of America  
<https://www.corteva.com/>

*plant breeding, applied plant science and sustainability,*



### Daymsa

Camino de Enmedio 120  
50013 Zaragoza  
Spain  
[tshkarban@daymsa.com](mailto:tshkarban@daymsa.com)

*Biostimulant Producer, Chemical/Fertilizer*



### **Deutscher Sojaförderring**

Hochburg 1  
79312 Emmerdingen  
Germany  
[martin.miersch@sojafoerderring.de](mailto:martin.miersch@sojafoerderring.de)

*German Soybean Association, Value network*



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### **Donau Soja**

Wiesingerstraße 6/14  
1010 Wien  
Austria  
[rittler@donausoja.org](mailto:rittler@donausoja.org)

*Platform organisation for sustainable soybean production and consumption*



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### **EST GmbH**

Mühlberg 8  
5132 Geretberg  
Austria  
[Josef.Neubauer@est.gmbh](mailto:Josef.Neubauer@est.gmbh)

*Soybean processing equipment*



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### **Farmet a.s.**

Jirinkova 276  
55203 Ceska Skalice  
Czech Republic  
[m.stauda@farmet.cz](mailto:m.stauda@farmet.cz)

*Complex Oilseeds and Oil Processing Technologies, Feed extrusion technologies*



### **GDM Seeds Argentina**

4003 Commercial Center Drive Marion, AR  
72364  
United States of America  
<https://www.gdmseeds.com/>

*Breeding*



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### **Grainsense**

Tutkijantie 9  
90590 Oulu  
Finland  
[olga.smirnova@grainsense.com](mailto:olga.smirnova@grainsense.com)

*Soybean Quality Monitoring Equipment*



**GrainSense**

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### **Grain Farmers of Ontario**

679 Southgate Dr  
Guelph, ON N1G 4S2  
Kanada  
<https://gfo.ca/>

*Grain Farming Association, Food quality and safety*



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### **Grim Management Services B.V.**

Meliepark 21  
52561 EM Vlijmen  
The Netherlands  
[edwin.grim@ralcoagriculture.com](mailto:edwin.grim@ralcoagriculture.com)

*versatile soil and plant health*



## Haldrup

Justus-von-Liebig-Straße 3  
74532 Ilshofen  
Germany  
<https://www.haldrup.net/>

*Plot combine, Plot seeder, Field research equipment*



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## Harvest Master

1132 W. 1700 N.  
Logan, UT 84321  
United States of America  
<https://www.harvestmaster.com/>

*Data collection performance, GrainGage, Mirus*



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## Haziak SAS

Sarmiento 819-Piso 8-Of. 3  
2000 Rosario  
Argentina  
[jsrferrarotti@gmail.com](mailto:jsrferrarotti@gmail.com)

*Exporters and breeders of non-transgenic soybeans*



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## INARI

One Kendall Square, Building 600/700, Suite  
7-501  
MA 02139 Cambridge  
United States of America  
<https://inari.com/>

*Gene editing, Sustainability, CRISPR, Plant breeding*



## Institute of field and vegetable crops Novi Sad

Maksima Gorkog 30  
21101 Novi Sad  
Serbia  
[jegor.miladinovic@nsseme.com](mailto:jegor.miladinovic@nsseme.com)

*Breeding, Seed Production*



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## Lallemand

Petaluma  
California 94955  
USA  
[gspecht@lallemand.com](mailto:gspecht@lallemand.com)

*Plant care*



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## Lidea

Avenue Gaston Phoebus  
64230 Lescar  
France  
<https://lidea-seeds.com/contact-us>

*Seeds and breeding*



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## Nourivit

Wienersdorferstraße 20-24/M33/5  
2514 Traiskirchen  
Österreich  
[eva.harreither@nourivit.com](mailto:eva.harreither@nourivit.com)

*Microbial inoculants/biostimulants*



## Prograin

145 Rang du Bas-de-la-Rivière N, Saint-Césaire  
QC J0L 1T0  
Canada  
[prograin@prograin.qc.ca](mailto:prograin@prograin.qc.ca)

*production of exclusively soybean, seeds and food grade grains*



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## Rizobacter

100 S. Saunders Rd  
Suite 150  
Lake Forest, IL 60061  
United States of America  
<https://www.rizobacter.com/>

*Biotechnologies, Microbiological agriculture*



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## RWA Raiffeisen Ware Austria Ag

Wienerbergstraße 3  
1100 Wien  
Austria  
[johann.blaimauer@rwa.at](mailto:johann.blaimauer@rwa.at)

*Trading, Seeds*



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## Saatgut Austria

Wiener Straße 64  
3100 St. Pölten  
Austria  
<http://www.saatgut-austria.at>

*Association of plant breeders and seed producers in Austria*



## Saatzucht Donau, Saatbau Linz, Probstdorfer Saatzeit (joint booth)

Saatzeitstraße 11  
2301 Probstdorf  
Austria  
[johann.birschitzky@saatzucht-donau.at](mailto:johann.birschitzky@saatzucht-donau.at)

*Soybean breeding, seeds*



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## Saphium | Plant Partners

Kapfenstein 106  
8353 Kapfenstein  
Austria  
[office@saphium.eu](mailto:office@saphium.eu)

*Microbial, Rhizobia inoculant*



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## Soia Italia

Via San Colombano 81/A  
26900 LODI  
Italy  
[pciriani@soiaitalia.it](mailto:pciriani@soiaitalia.it)

*Italian soybean value chain organisation*



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## Someno's Tofu

Tofu Catalan S.L. (Japanischer und Spanischer Name, Invoice soll an die Spanische Firma) C/ D'Aribau 119 08036  
Barcelona  
Spain  
[mkobayashi@somenoya.com](mailto:mkobayashi@somenoya.com)

*Tofu and plant based meat Manufacturer from Japan*



### **Soyconsultant**

Metselaarsgilde 16  
8253 HM Dronten  
Netherlands  
[info@soyconsultant.nl](mailto:info@soyconsultant.nl)

*Edamame Expert*



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### **UFOP**

Claire-Waldoff-Straße 7  
10117 Berlin  
Germany  
[m.leonhard@ufop.de](mailto:m.leonhard@ufop.de)

*Representation of political interests in protein crop production, processing and marketing*



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### **US SOY**

16305 Swingley Ridge Rd  
Suite 150  
Chesterfield, MO 63017  
United States of America  
<https://ussoy.org/>

*Sustainability, Production Research, Soil Health*



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### **Valibiotics**

Feldmattstraße 13  
6032 Emmen  
Switzerland  
[eva.harreither@nourivit.com](mailto:eva.harreither@nourivit.com)

*Microbial inoculants/biostimulants*



### **Verein Soja aus Österreich**

Am Fuchsenfeld 1-3/24/21  
1120 Wien  
Austria  
[karl.fischer@soja-aus-oesterreich.at](mailto:karl.fischer@soja-aus-oesterreich.at)

*Austrian Soybean Association*



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### **Wintersteiger**

4705 W. Amelia Earhart Drive  
Salt Lake City, UT 84116  
United States of America  
<https://www.wintersteiger.com/de/>

*field research equipment*



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### **Wenger**

831 South College Street, PO Box 409  
Myerstown, PA 17067  
United States of America  
<https://wenger.at/>

*Soybean processing, extrusion, equipment*



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### **Zuern Harvesting**

PO Box 127  
Milaca, MN 56353  
United States of America  
<https://www.zuern.de/startseite>

*Field research technology, Plot combines, Plot seeders*



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