80th IIRB CONGRESS

7 - 9 July 2026

Advancing Sugar Beet in a Dynamic Environment

IIRB
INTERNATIONAL INSTITUTE
OF SUGAR BEET RESEARCH

In partnership with British Beet BBRO Research Organisation

We would like to thank our sponsors for their support of this scientific conference, which has been essential in making the event possible and ensuring a high-quality programme.

Programme

Monday 6th July 2026

Please scan the QR code to view the presentation abstracts.

5.00 pm Reception drink—Sponsored by:

6.30 pm End of reception

Tuesday 7th July 2026

Opening Session

8.30 am Mark Stevens (BBRO): Presidential address

8.45 am Keith Packer (British Sugar): The evolution of the UK sugar beet sector: a processor's perspective

9.00 am James Northen (NFU): The evolution of the UK sugar beet sector: a grower's perspective

9.15 am Simon Pearson (LIAT): Robotics and AI: key challenges and opportunities

9.30 am Coffee break—Sponsored by:

1 Advanced agronomy in environmental challenges

(Chair: André van Valen (IRS))

10.10 am Georgina Barratt (BBRO): Identifying and mitigating greenhouse gas emissions from sugar beet production

10.30 am Anna Jacobs (IfZ): Is sugar beet really detrimental to soil organic carbon?

10.50 am Andrius Hansen Kemezys (NBR): Nitrogen-fixing bacteria to improve nitrogen use efficiency. Do biostimulants deliver what they promise?

11.10 am Paul Tauvel (ITB): Advising sugar beet growers on irrigation in diversified contexts

11.30 am Till Rose (University of Kiel): Drought-sensitive sugar beet modelling for ideotyping future high-yielding genotypes

11.50 am Bettina Müller (Strube D&S GmbH (RAGT Group)): BeetAdapt: new technologies for high-throughput phenotyping and phenomic selection in sugar beet breeding

12.10 pm Lunch break

2 Current perspectives on weed control and resistance management

(Chair: André Wauters (IRBAB))

1.40 pm Peter Risser (Südzucker AG), Anne Lisbet Hansen (NBR) & Sjef Van der Heijden (IRS): Current deployment and challenges of the Conviso® One herbicide-based weed management system in European sugar beet cultivation

2.00 pm John Cussans (ADAS): Acetolactate synthase (ALS) resistant weeds in sugar beets

2.20 pm Christine Kenter (IfZ): Performance of Conviso Smart sugar beet varieties under classical and Conviso® One herbicide programmes—smarter beets, better yields?

2.40 pm Thomas Leborgne (ITB): PARSADA: a French national plan to anticipate the herbicide molecules withdrawal

3.00 pm Abel Barreto (IfZ): Robotic weeding performance: recent insights from the digital experimental field FarmerSpace

3.20 pm Poster Session I & Coffee break—Sponsored by: KWS

3 Rhizomania & Cercospora leaf spot:

Fungicide and genetic resistance mechanisms
(Chair: Louise Holmquist (NBR))

4.30 pm Kristin Benjes (IfZ): Resistance to rhizomania: interaction of the resistance protein Rz2 with the avirulence protein TGB1 and evaluation of the resistance stability

4.50 pm Austin Lien (University of Minnesota): Genome wide association study of *Cercospora beticola* following repeated exposure to Demethylation inhibitors reveal complex fungicide resistance mechanisms

5.10 pm Séverine Fontaine (INRAE): Investigating genetic diversity and DMI resistance in French *Cercospora beticola* populations with both neutral and selected genetic markers

5.30 pm Wibke Imgenberg (AGRANA): High resistance is not absolute: lessons from *Cercospora beticola* epidemics in Austrian sugar beet

5.50 pm End of day 1

7.30 pm Conference dinner—Sponsored by: BritishSugar

Wednesday 8th July 2026

4 Virus Yellows: Breeding, disease control and agronomic tools
(Chair: Mark Varrelmann (IfZ))

9.00 am Alistair Wright (BBRO): Variety tolerance, the key to unlocking IPM strategies for Virus Yellows

9.20 am Niels Wynant (Florimond-Desprez): Breeding sugar beet for tolerance to mixed Yellowing Viruses

9.40 am Audrey Fabarez (ITB): PNRI-C: developing strategies to manage beet yellows disease

10.00 am Isabelle Stockmans (IRBAB): VirBiCon: integrated approaches to understand and mitigate virus yellows in sugar beet cultivation in Belgium

10.20 am Elma Raaijmakers (IRS): The effect of seed treatments on foliar insect pests in young sugar beet plants

10.40 am Poster session II and coffee break

5 Beet weevils & Cicades I
(Chair: Marion Seiter (AGRANA))

11.30 am Benjamin Coussy (FNAMS): Search for alternative control solutions against the beet weevil, *Lixus juncii*

11.50 am Daniela Wöber (AIT): Decoding the sugar beet weevil: molecular resources for RNAi-based pest control

12.10 pm Živko Ćurčić (Institute of Field and Vegetable Crops): Why sugar beet RTD persists in Serbia: the newly revealed sunflower-wheat lifecycle of *Reptalus quinquecostatus*

12.30 pm Christoph Kreitzer (AGRANA): Distribution and dynamics of cixiid vectors transmitting phloem-restricted pathogens in Austrian sugar beets

12.50 pm Lunch break

6 Cicades II & SBR Complex
(Chair: Elma Raaijmakers (IRS))

2.20 pm Anne-Katrin Mahlein (IfZ):
Poster award & Best PhD Talk

2.30 pm Omid Eini (IfZ): Directed sequencing of plant specific DNA identifies the dietary history of *Pentastiridius leporinus*

2.50 pm Facundo Ispizua Yamati (IfZ): Image-based automated identification of SBR and Stolbur-transmitting planthoppers on sticky traps

3.10 pm Olaf Czarnecki (KWS) & Carsten Stibbe (KWS): Identification of infestation patterns in the SBR-RTD disease complex: the base for resistance breeding and agronomic control measures

3.30 pm Achim Jesser (Südzucker AG): Agronomic pathways to mitigate Syndrome des Basses Richesses (SBR): integrating cultural practices and vector control for yield stabilization

3.50 pm Vincent Laudinat (ITB):
Closing words & End of day 2

Thursday 9th July 2026

Excursion – Botanical Gardens, Cambridge - Organised by: British Beet BBRO Research Organisation

From Start of the visit in small groups (staggered over time)

10.00 am Meeting point: Brookside Gate, 1 Brookside Cambridge, CB2 1JE, Cambridge

POSTER PROGRAMME—80th IIRB CONGRESS, 7-9 JULY 2026, CAMBRIDGE (UK)

1 Agricultural Engineering

1.0	T. Rose *et al.*	Quantifying functional yield components in Sugar Beet Genotypes using a high-throughput spectral remote Sensing Workflow
1.1	J. Müller *et al.*	UAV-based photogrammetry for sugar beet clamp volume estimation: method validation and practical application
1.2	J. Streit *et al.*	Field robotics in sugar beet trialing—Combining phenotyping and microplot thinning with the BlueBob
1.3	B. Müller *et al.*	Automated high-throughput plant phenotyping with X-ray and optical imaging for above- and belowground trait evaluation of sugar beet under drought stress
1.4	K. Kempe *et al.*	BeetAdapt: adapting sugar beet for climate resilience
1.5	F. Joudelat *et al.*	A satellite toolbox for sugar beet monitoring
1.6	F. Joudelat	Using Artificial Intelligence in Agronomy
1.7	T. Leborgne	Prévibest: a tool to understand and apprehend the risk of soil compaction during beet harvest
1.8	T. Leborgne	Farmdroid in organical sugar beet: technical and economical analysis
1.9	S. Talola *et al.*	The PeDro Project: evaluating Robotic and Precision Farming Technologies for Sugar Beet Production under Finnish Field Conditions

2 Beet Quality & Storage

2.0	J. Ekelöf *et al.*	IIRB Study group Beet Quality & Storage
2.1	J. Ekelöf	Innovative Covering Materials for Frost Protection in Sugar Beet Storage
2.2	H. Narten *et al.*	Marc content of sugar beet—long-term investigations of a highly heritable trait
2.3	L. Borisjuk *et al.*	Resolving Inhomogeneous Sugar Accumulation in Intact Sugar Beet Taproots Using Advanced Magnetic Resonance Imaging
2.4	S. L. Kandel *et al.*	Microbiology of sugarbeet raw diffusion juice from the factory processing

3 Communication Techniques

3.0	F. Bourdeaux	From research to the field: communicating PNRI outcomes to growers for managing sugar beet yellows
3.1	S. Coenen *et al.*	National Observation and Advisory Network for Sugar Beet Crops
3.2	F. Broom	BBRO Communications—Fit for the future

4 Genetics & Breeding

4.0	R. Naegele *et al.*	Using 2D and 3D modeling and SNP-based markers to predict plant architecture and leaf morphology in *Beta* spp.
4.1	J. Li *et al.*	Genomic selection for yield and disease resistance in sugar beet
4.2	E. M. Long	Mutations and adaptations: a metagenomic analysis of whole genome sequence in *Beta vulgaris*
4.3	M. Wai *et al.*	Evaluating Drought Tolerance in Sugar Beet *(Beta vulgaris*): a Multimodal Phenotyping and Physiological Analysis

5.11	O. Neher *et al.*	IIRB Project Group Control of Leaf Diseases
5.12	C. - H. Jonsson	Addressing the Increasing Pressure of *Cercospora beticola*: Management and Resistance Monitoring for Swedish and Danish Sugar Beet Farmers
5.13	J. Neubauer *et al.*	A Novel Nanotechnology Approach: Cellulose Nanofiber-Copper Composites for Cercospora Leaf Spot Management in Sugar Beet
5.14	K. Orman *et al.*	CropWatch: integrating Broad Perspectives for In-Depth Insight into the UK Sugar Beet Crop
5.15	K. Orman *et al.*	Spore Patrol: Tracking and Tackling the Rise of Cercospora Leaf Spot in UK Sugar Beet
5.16	D. Vanderveken *et al.*	Towards an optimized fungicide strategy: investigating number, timing and frequency of fungicide applications for an enhanced *Cercospora beticola* control
5.17	L. Ponet *et al.*	Comparing *Cercospora beticola* field inoculation methods for assessing varietal tolerance in sugar beet
5.18	G. Campagna	Leaf management strategies with particular focus on “cerco-stress”
5.19	G. Campagna	New strategies for Lixus control
5.20	D. Jones *et al.*	Farm scale use of endophyte grasses and strip tillage for resilient sugar beet
5.21	R. Lawson *et al.*	Nematodes as bioindicators: assessing the impact of sugar beet cultivations
5.22	E. Moliszewska *et al.*	*Pleurotus ostreatus* mycelium—a good biocontrol weapon against *Heterodera schachtii*
5.23	H. Ebmeyer *et al.*	Impact of sowing and harvest date on SBR-RTD disease severity and yield losses in sugarbeet
5.24	F. E. Mendez Castro *et al.*	Digital Eyes on Sugarbeet Pests: Monitoring Aphids and Planthoppers with Scalable Technologies
5.25	F. E. Mendez Castro *et al.*	Tracking the Threat: KWS sugarbeet pathogen monitoring across Europe
5.26	N. Niteshbhai Bagsariya *et al.*	Breaking the cycle: insecticide seed treatment in winter wheat affects the survival of *Pentastiridius leporinus*
5.27	L. Potyondi *et al.*	Summer root rot (SBR and RTD) in Hungary
5.28	A. Kosovac *et al.*	Sunflower as an in-field source of ‘*Candidatus* Phytoplasma solani’ with major implications for RTD in sugar beet
5.29	M. Schieler *et al.*	The extension of the decision support system SIMPENTA to control the sugar beet pest *Pentastiridius leporinus*
5.30	Y. Galein *et al.*	Surveillance of Cixiidae populations and associated SBR/RTD disease severity
5.31	S. Liebe *et al.*	Variety testing under SBR infestation—Current status and challenges
5.32	R. Leiser *et al.*	Improving stress resilience of sugar beet
5.33	M. Benz *et al.*	Two years of SBR monitoring in German border regions—Vector and pathogen spread beyond visible symptoms and yield loss calls for preventive action

7.10	M. WEGENER *ET AL.*	CONVISO® SMART—Joint stewardship approach for the long-term durability of the system
7.11	A. HUBAUX *ET AL.*	Study of herbicide resistance development in Camomile populations from CONVISO® SMART sugar beet fields
7.12	C. ROYER	Grass management in situations of resistance in France
7.13	Q. TILLOY *ET AL.*	Low inputs weed management: 5 years of field trials

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80th IIRB Congress Venue

Churchill College, University of Cambridge
Storey's Way

Cambridge
United Kingdom - CB3 0DS

The International Institute of Sugar Beet Research (IIRB aisbl) connects science, breeding companies, industry, and innovation in sugar beet production worldwide. Since 1931, the IIRB has brought together researchers, companies, and experts to exchange knowledge, foster collaboration, and help shape the future of sugar beet research.

For those looking to become part of a strong international network dedicated to scientific progress and practical impact, the IIRB offers a platform for dialogue, cooperation, and innovation.

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