

Thursday 23rd June 2022

Excursion to Gembloux Agro-Bio Tech

Visit to Gembloux Agro-Bio Tech, University of Liège. Founded in 1860, the Faculty of Gembloux is the oldest Belgian teaching and research institution dedicated to agronomy and biological engineering.

8 am Bus departure to Gembloux Agro-Bio Tech

9 am Arrival at Gembloux, welcome coffee

9.20 am Frédéric Francis: Welcome, presentation of Agro-Bio Tech and TERRA research unit

9.30 am Visit of TERRA research centres:

Environment is life – Understanding and predicting the influence of environmental factors on terrestrial ecosystem dynamics

Agriculture is life – Guaranteeing a high-quality level of agricultural production that respects the environment

Food is life – Designing tomorrow's food, enhancing agro-resources, developing bio-processes and innovative bioproducts

Forest is life – Understanding how forests work in order to better manage them.

1 pm Lunch, Ferme de Profondval

2.30 pm Return to Mons, Brussels or BRX airport (arrival ~4 pm)

Venue

Wallonia Conference Center Mons (WCCM)
9, Avenue Mélina Mercouri

B – 7000 Mons

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Session 6 'Combining approaches to prevent and limit Virus Yellows epidemics' is supported by PNRI



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78TH IIRB CONGRESS

**'Growing sugar beet
for the future'**

21 - 23 June 2022

**WCCM – Wallonia Conference
Center Mons, Belgium**



INTERNATIONAL INSTITUTE
OF SUGAR BEET RESEARCH

Programme

Tuesday 21st June 2022

8.30 am General Assembly of IIRB members

Opening session 'Agriculture's strength adapting to climatic and environmental challenges'

(Chair: DESIRÉE BÖRJESDOTTER)

9.20 am Desirée Börjesdotter: Presidential address

9.30 am JORIS RELAES (ILVO): Agriculture in the context of economic, environmental and climate policy

10.00 am DIDIER STILMANT (CRA-W): The challenge of agroecological transition of agro-food systems with a special focus on the lever offered by cropping systems diversification

10.30 am *Coffee break*

11.00 am BRAM VAN DE POEL (Univ. of Leuven): Agrivoltaics

11.20 am PIETER SPANOGHE (UGent): Balance between plant protection products and alternative solutions considering human health and environment

11.40 am HEIDI PITTMVILS, ANDRÉ WAUTERS (IRBAB): The history of sugar beet research in Belgium: a 90-year success story

12.00 pm *Lunch break*

Session 2 'Optimising crop growth'

(Chair: HERBERT EIGNER)

1.30 pm HEINZ-JOSEF KOCH (IfZ): Effects of different cover crops on soil structure and succeeding young sugar beet under contrasting N fertilization

1.50 pm GERNOT BODNER (BOKU Wien): Management options to improve drought resilience in sugar beet

2.10 pm LUCY TILLIER (Univ. of Nottingham): The impact of canopy architecture on radiation use efficiency and yield potential of sugar beet

2.30 pm **Poster session I** and coffee break

Session 3 'Advanced crop management'

(Chair: ANNE-KATRIN MAHLEIN)

3.50 pm FRANÇOIS JOUDELAT (ITB): LITERAL – a light but extensive phenotyping tool for beets

4.10 pm ABEL BARRETO, FACUNDO ISPIZUA (IfZ): Assessments of relevant leaf diseases in sugar beet variety trials by multispectral UAV imaging and artificial intelligence methods

4.30 pm SEBASTIAN STREIT (IfZ): FarmerSpace – a trial field for digital crop protection in sugar beet production

4.50 pm OLGA FISHKIS (IfZ): Environmental risks of mechanical vs. chemical weed control in sugar beet: soil erosion, soil fauna, toxicological risks, and CO₂ emissions

5.10 pm SANNE TORFS (IRBAB): Limiting the use of Conviso® One through bandspraying

5.30 pm End of day 1

7.00 pm Coach departure congress dinner

Wednesday 22nd June 2022

Session 4 'Challenges accepted: sugar beet resistance breeding'

(Chair: HENDRIK TSCHOEP)

8.00 am CHENGGEN CHU (USDA-ARS): Potential of germ-plasm collection in the U.S. NPGS for sugar beet improvement indicated by genetic diversity analysis

8.20 am JENS CHRISTOPH LEIN (KWS): Next level sugar beet breeding – the fast lane to the most robust high-tech field-crop

8.35 am FRIEDRICH KOPISCH-OBUCH (KWS): Strengthening the defence-line against Cercospora

8.45 am PER SNELL (DLF Beet Seed): A strategy for the long fight against Cercospora leaf spot disease in sugar beet

8.55 am VALENTINA ROSSI (DLF Beet Seed): Gene regulatory networks in sugar beet defence responses to *Aphanomyces cochlioides*

9.05 am PIERRE LONGERSTAY (SESVanderHave): Breeding for SBR tolerant varieties at SESVanderHave

9.20 am JENS LOEL (Betaseed): Small microorganisms with a big impact: experiences with biological seed treatment indicate benefits in sugar beet growing

9.30 am DAVID EYLAND (SESVanderHave): Mitigating drought impact through variety improvement

9.40 am **Poster session II** and coffee break

Session 5 'Maintaining sugar beet health'

(Chair: ELMA RAAIJMAKERS)

10.40 am LINDA FRIJTERS (IRS): Efficacy and necessity of seed treatments for a sustainable use

11.00 am MELVIN D. BOLTON (USDA-ARS): Genome-wide association reveals the complex genetics of DMI fungicide resistance in *Cercospora beticola*

11.20 am SIMON BOWEN (BBRO): Development of a

Cercospora risk warning system for the UK

11.40 am SEBASTIAN LIEBE (IfZ): Adaption of *Beet necrotic yellow vein virus* to Rz1 resistance in sugar beet

12.00 pm *Lunch break*

Session 5 (continued)

1.30 pm DANIELA HOLTGRÄWE (Bielefeld University): Towards the identification of genes relevant for nematode tolerance in sugar beet

1.50 pm MARIA ZOTTELE (University Innsbruck): New application strategies of entomopathogenic fungi against the sugar beet weevil

2.10 pm EVA MARIA SEHR (AIT): Microbial factors underlying storability of sugar beet

2.30 pm *Coffee break*

Session 6 'Combining approaches to prevent and limit Virus Yellows epidemics'

(Chair: VINCENT LAUDINAT)

3.00 pm MARK STEVENS (BBRO): The ongoing threat from Virus Yellows: was 2021 just a lull in the storm?

3.20 pm ROXANA HOSSAIN (IfZ): Virus Yellows resistance screening

3.40 pm MARTIN MESSERSCHMIDT (KWS): Flavie – a collective, multi-stakeholder effort to propose varietal solutions against virus yellows

3.50 pm LOUISE HOLMQUIST (DLF Beet Seed): Analysis of Virus Yellows resistance in sugar beet reveals multiple evolutionary origins

4.00 pm ALISTAIR WRIGHT (BBRO): Predicting the future – are traditional diagnostics necessary to fight Virus Yellows?

4.10 pm PAUL TAUVEL (ITB): Reducing yield losses due to Yellow Viruses with intercropping

4.20 pm LEVINE DE ZINGER (IRS): Use of natural enemies to support chemical control of aphids and Virus Yellows in sugar beet

4.30 pm AMÉLIE MONTEIRO (ITB): Evaluation of biocontrol products against *Myzus persicae* to prevent sugar beet yellows

4.40 pm CHRISTA HOFFMANN (IfZ): Storability of Virus Yellows-infected beets

4.50 pm Closing words, announcements

5 pm End of day 2