

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

8.15 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 (IRBAB): IRBAB: 90 years applied research and expertise for the Belgian sugar beet sector

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 CHENGGUO CHU (USDA-ARS): Potential of germplasm 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