

IIRB SEMINAR 2023

The use of weather data in crop management

5th December 2023

**Faculty Club, Groot Begijnhof 14,
B – 3000 Leuven**



INTERNATIONAL INSTITUTE
OF SUGAR BEET RESEARCH

PROGRAMME

8.30 am Jan Willem VAN ROESSEL (President of IIRB) – Welcome

I. Meteorological data and weather prediction – possibilities and limitations

8.35 am Steve Dorling (WeatherQuest Ltd, UK): Insights for sugar beet production from weather and climate data

9.00 am Rafael Posada Navia-Osorio (DWD, D): Agrometeorology as a support for agriculture – experience of the German Weather Service

II. Weather data-based models in other crops: what is there to learn for sugar beet?

9.20 am Geert Kessel (WUR, NL): Weather based modelling of the *P. infestans* infection cycle to guide preventive fungicide applications

9.40 am Patrick Hann (MELES, A): Modelling approaches to predict the occurrence and flight activity of click-beetle species (*Agriotes* sp.) and wireworm damages on potatoes in Austria

10.00 am Claas Nendel (ZALF, D): Predicting crop growth and yields at larger scales – the current state of mechanistic modelling

10.20 am *Coffee break*

III. Weather data as a basis for Integrated Crop Management in sugar beet

Weather data as a basis for agronomic decisions

10.50 am Rémy Duval (ITB, F): Evaluating suitable days for field operations, including mechanical weeding: The tool JDistas

11.05 am Joakim Ekelöf, William English (NBR, S): The use of weather data for modeling at NBR

11.20 am Corné Kempenaar (WUR, NL): Use of weather data in agronomic decisions / ICM

Cercospora: an example of leaf disease forecast models

- 11.40 am François Joudelat (ITB, F): Forecasting *Cercospora* incidence in real-time with weather data, plot features and assimilation of measurements
- 12.00 am Simon Bowen (BBRO, UK): *Cercospora*: weather data, risk monitoring and disease management in the UK
- 12.20 pm Abel Barreto (IfZ, D): Integrating environmental, meteorological and drone data to predict the occurrence of *Cercospora beticola* in sugar beet
- 12.40 pm *Lunch break*

Weather data-based models to predict insect occurrence

- 2 pm James Bell (Rothamsted Research, UK): Advancing pre-season and within-season rolling forecasts for the virus yellows aphid vector *Myzus persicae*
- 2.20 pm Manuela Schieler (ZEPP, D): A decision support system to regulate *Pentastiridius leporinus*: a vector of phytopathogens in sugar beets
- 2.40 pm Laura Bernadó (AIT, A): AI-supported models for predicting sugar beet weevil infestations

IV. Challenges posed by a changing climate

- 3 pm Jan Willem van Roessel (IRS, NL): The influence of weather and climate on the growth of sugar beet (and other crops)
- 3.20 pm Elma Raaijmakers (IRS, NL): Closing remarks
- 3.30 pm End of seminar

Venue

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