

IIRB NEWS 12/2020



INTERNATIONAL INSTITUTE
OF SUGAR BEET RESEARCH

With this December newsletter, we will give you an overview on IIRB's recent activities and an outlook on events to come. The pandemic strongly influenced IIRB's work from March 2020 onwards, but also in a positive way. All group meetings planned for the year were converted to video conferences. Due to the ease of online participation some groups increased their number of meetings, others had a much higher number of attendees. IIRB very quickly adapted to the modern means of communication and information exchange.

Although we all long for personal exchange again, the planned 2021 seminar will be held in a fully virtual format. For the moment we will keep up the excellent online exchange and wish all to stay safe until we can meet again in person, but we are also positive that virtual meetings will contribute to an enhanced exchange among IIRB groups in the future.

SG WEED CONTROL

Video meetings February, May and June

The group met three times in 2020 during video conferences to update each other on the current state of herbicide registrations and weed development in the different countries. The group is working together closely to defend active ingredients up for reregistration. A position paper on Triflurosulfuron-Methyl was set up and discussed during the meetings. It will be sent to stakeholders once required to provide scientific arguments to the debate.

PG NEONICS AND VIRUS YELLOWS

Video meetings June and September

Having met in person in February 2020 during the 77th IIRB Congress in Brussels, the group convened again in June and September to update each other on the development of virus yellows in Western European countries, a consequence of the loss of neonicotinoid treatments against aphids. In cooperation with the IIRB's Genetics and Breeding group, the group initiated common trials to develop testing methods for virus resistance/tolerance. Trial results of the participating institutes will be discussed with the breeding companies. The aim is to develop a simplified testing method in agreement with breeders to test resistance/tolerance towards viruses in the virus yellows complex.

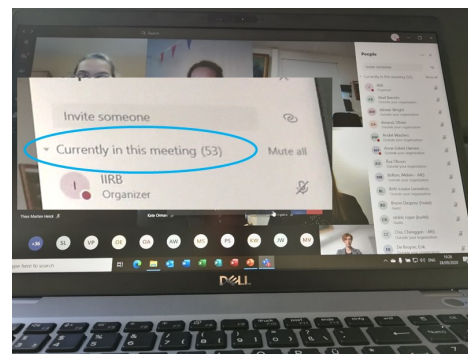


Virus yellows symptoms, BBRO trials

SG PESTS AND DISEASES

28th/29th September 2020, video conference

The Pests and Diseases group met on two consecutive afternoons for a dense programme of 22 talks and discussions. Major topics addressed were different virus diseases, with a focus on resistance-breaking strains of Rhizomania and the virus yellows complex. Pest control in a post-neonic era was debated in view of ecological intensification measures to enhance natural enemy populations. Next to nematode resistance and research reports on several fungal leaf diseases the major focus of the second day was on Cercospora genetics, propagation, detection, its resistance to fungicides, and Cercospora management options. The meeting proved to be very successful. Due to its online format, twice the number of participants attended compared to previous meetings. The group decided to alternate annual in-person and virtual meetings in the future to facilitate international cooperation and knowledge exchange.



A clear advantage of online meetings: The ease of participation doubled the number of attending members at study group meetings



SG AGRICULTURAL ENGINEERING

Video meeting 7th October 2020

The group met online and exchanged information on the relevant topics and ongoing research projects in the field of agricultural engineering in the different countries. Several institutes reported on their trials and activities in the field of robot weed control. With their expertise, the group members gave input to the programme for the IIRB seminar 2021 'Advancing weed control in sugar beet with sensors and field robotics'.

SG PLANT AND SOIL

Video meeting 27th October 2020

The main focus of the meeting were the effects of cover crops on the sugar beet crop. Cover crops are used to catch nitrate and prevent leaching, to reconstitute N to the crop after spring mineralisation, to suppress autumn weeds by their fast canopy development, or to improve soil structure as a consequence of deep rooting. They serve as bee pastures and contribute to landscape biodiversity. Cover crops must be susceptible to frost to not provide a 'green bridge' to pests to survive winter. With the use of glyphosate in cover crop management being under review in several countries, the focus will again be put on soil tillage.

Additionally, the IfZ's project EvaHerb was presented that is assessing the site-specific risk of mechanical and chemical weed control in row crops. Moreover, information was given on the monitoring of changes in soil organic carbon with improved indicators.



Assessing the advantages and disadvantages of cover crops (Pictures: IfZ/Stracke)

SG COMMUNICATION TECHNIQUES

Video meeting 3rd December 2020

The group met to discuss suitable methods to support farmers in the face of yellowing viruses that significantly impacted crops in several European countries in 2020. Peer learning is a means to engage farmers in exchanging information among each other. Also, small-group training sessions with farmers set up by institutes for information transfer were presented and discussed. Communications will become more important; they need to be targeted and multi-channel.

IIRB SEMINAR 'ADVANCING WEED CONTROL IN SUGAR BEET WITH SENSORS AND FIELD ROBOTICS'

4th/5th May 2021

The options for sensor- and robot-assisted weed control have increased significantly in the past few years. The 2021 IIRB Seminar will set the focus on this development, presenting the state of the art of this technology section.

Initially planned as an in-person event, the seminar will now be held fully virtually. In a series of talks, speakers will present an overview on the use of sensors and robots in agriculture, and a range of technical approaches. There will be live discussions after each talk. The second session will give a clear view on current practical applications and the acceptance of the technology among farmers. During a panel discussion, speakers will address possible developments and will give an outlook on options that may become available in the future.

The seminar will be complemented the next day by live video recordings of the French field demonstration Désherb'Avenir, taking place on 5th May 2021. Information and video documentation of robot types will be presented that can be used to control weeds in sugar beets.

Please save the seminar date in your agenda.

We are sure the topic will attract a large number of attendees and look forward to your participation at this first IIRB online seminar.



Sensor data taken in the field (Picture: IfZ/Paulus)

IIRB MEETINGS AGENDA

SG Seed Quality & Testing	Jan. 21 st , 2021, video conference
AC meeting	March 25 th , 2021, video conference
Seminar 'Advancing weed control in sugar beet with sensors and field robotics'	May 4 th , 2021, online seminar
SG Communication Techniques	May 11 th , 2021, video conference
SGs Plant & Soil and Beet Quality & Storage (joint meeting)	May 20 th 2021, video conference

