

IIRB NEWS 7/2018



INTERNATIONAL INSTITUTE
OF SUGAR BEET RESEARCH

A joint study group meeting and the 76th IIRB Congress were held in the first half of 2018. The main topics of interest are summarized in the following.

SGS WEED CONTROL/AGRICULTURAL ENGINEERING

15th May 2018, Bern/Zollikofen (CH)

Both study groups met to discuss the current options of alternative weed control techniques, e.g. with optical sensors and robotics. These may become more important as weed control is facing restrictions in active ingredients on the one hand, and weed resistance on the other.

76TH IIRB CONGRESS

5-7 June 2018, Deauville (F)

The IIRB congress, a platform for sugar beet researchers to present their results to the sector, was organised in cooperation with the French technical institute ITB at the Centre International Deauville. 350 participants from 21 countries were present: researchers, grower association and sugar industry representatives as well as breeders, chemical companies and fertilizer and machinery producers.

Challenging times

Taking place in challenging times as the first IIRB congress after the end of the sugar market regime, and with the sector facing increasing restrictions in the registration of plant protection products, IIRB president Jean-Pierre Vandergeten opened the congress with a committed speech. He stressed the need for collaboration of research institutes to generate research-based, objective information. Joint efforts would

be needed to search for alternative strategies, maintaining yields despite the reduced availability of plant protection products. He emphasized the important role for the IIRB to play in this process, and urged decision-makers to provide time and funding for further research projects. The results of scientific projects should be the basis of decision-making, not emotional opinions brought forward in public debates.

Opening session

In the Opening session, France as the host country presented the technical focus of its sugar beet sector and related it to societies' perception of progress. Anne-Laure Marteau, representative of the Normandy region, welcomed participants and confirmed their political support of research and innovation in agriculture. Vice-president Eric Lainé of the Interprofessional Association of Sugar Beet and Sugar AIBS explained the specificities of the French sugar beet sector and referred to the new challenges in the non-quota era. The constant efforts of the ITB to enhance beet productivity by research and innovation were presented by ITB president Alexandre Quillet. Its General director Vincent Laudinat introduced two major research programmes involving the ITB: AKER and SYPPRE. AKER is a joint research programme aiming to enlarge genetic diversity and its availability for breeding. Its president Bruno Desprez presented research progress of the project. The session closed with a talk of Christian Huyghe, Scientific Director for Agriculture of the National Institute for Agricultural Research. He analysed changes in societies' perception of technical progress. Today science and scientific expertise are often criticized, and an emergence of scientific populism can be seen.

Technical sessions

The afternoon and following congress day were dedicated to different technical sessions.

Big data is a topic of increasing importance, requiring technical capabilities and generating large data sets that may help to approach issues in plant resistance breeding. Session 2 "Improving yields through data capture" highlighted the current research in sugar beet in this area.



IIRB President Jean-Pierre Vandergeten opening the congress





Participants at the 76th IIRB Congress in Deauville

Session 3 dealt with the constant improvement of soil health and resilience in the sugar beet rotation. Chaired by Herbert Eigner of the ARIC, the six speakers of this session elaborated on aspects of irrigation and water deficit stress as well as on sugar beet establishment and dependence of crop yields on pre- and cover crops in the rotation.

Pests and diseases remain a challenge for crop cultivation. Session 4, conducted by Mark Stevens (BBRO) and Mark Varrelmann (IfZ) as chair and vice-chair of the IIRB Pests & Diseases study group, discussed ways to tackle ongoing and future pest, disease and weed challenges. Main topics were *Cercospora beticola* as one of the major leaf diseases in sugar beet, and virus diseases.

Neonics— research on alternatives

The current political decision to ban neonicotinoids also in sugar beet is expected to strongly increase the spread of virus yellows. Despite a very low risk of neonicotinoid use in sugar beet for pollinators due to the non-attractivity of the crop and the low-dosed and well-targeted application in the sugar beet pill, the scientific arguments brought forward by research institutes could not prevent a ban. This will force farmers to rely on older active ingredients, mostly sprayed, which have a higher risk, lower efficiency due to aphid resistance and reduced efficiency against soil pests. There is an increased need for research institutes to collaborate, to bring forward research-based objective information and to communicate this towards stakeholders and politicians. A meeting of IIRB experts held just before the congress aimed at joining efforts in finding alternative strategies to control virus transmitting aphids and to maintain yields despite a reduced set of plant protection products available.



Marc Stevens, presenting likely consequences of Neonic loss

Resistance

Next to the possible risks of plant protection products discussed widely and controversially, there are challenges due to resistances of pathogens, pests and weeds against plant protection products. Barbara Manderyck, chair of the Weed Control group, summarized presentations of the 2017 IIRB

seminar on ALS-tolerant sugar beet. New cropping systems like CONVISO® Smart offer opportunities but need to be used wisely to prevent resistance build-up.

In the Open session, several topical aspects of sugar beet cultivation were raised that help to increase yields, starting from improved genetics and viable seeds to questions of storability and ways to minimize storage losses of beet.

Additionally, a wide variety of topics was presented in two poster sessions, which offered the possibility to discuss topics with the poster authors.

A congress dinner offered further possibilities for networking.

Flax, a specificity of Normandy

The field day on 7th June introduced the 170 participants to flax cultivation and processing. France produces 65% of the worldwide production of fiber flax. 115,780 tons of scudched fibers are produced annually on 89,000 hectares in France, of which 90% are used for textiles and the remaining 10% for other purposes like technical textiles, natural fiber composites for building, etc. Participants had the opportunity to visit a scuching factory and talk to a flax farmer. The French institute Arvalis presented their research on flax.

A barbecue at the Chateau du Champ de Bataille rounded off the last congress day.



Explanations by a flax farmer; presentation of different flax qualities

IIRB MEETINGS AGENDA	
SG Pests & Diseases	4-5/9/2018, Dinteloord (NL)
AC/SAC meeting	18/10/2018, Leuven (B)
SG Seed Quality & Testing	6/11/2018, King's Lynn (UK)

