

PROGRAMME

Conference on genome editing for food safety and crop improvement

October 13/14, 2022 Czech Academy of Sciences, Prague



in cooperation with:



food



society



energy

October 13/14, 2022
Czech Academy of Sciences, Prague

The Czech Academy of Sciences (CAS), and the European Sustainable Agriculture through Genome Editing network (EU-SAGE) invite you to a conference on genome editing for food safety and crop improvement.

Over the last century, plant breeding has become much more knowledge-based and has accelerated the development of improved crop varieties. However, conventional practices in plant breeding will not suffice to reach in a short time frame more sustainable agricultural production. One of the recent innovations in plant breeding is genome editing which enables the development of desired plant varieties in a precise, more efficient and directed manner. There are many published studies that demonstrate the potential of genome editing to improve crop yield and quality, as well as to render agriculture more sustainable and climate resilient. Many applications are at pre-commercial stage but could reach the market in the short term, depending on the regulatory framework. In EU, all crop varieties obtained by using genome editing are currently subject to strict GMO regulations, which de facto prevents Europe from using and cultivating these genome-edited crops. In April 2021, the EU Commission published its study on New Genomic Techniques (NGTs) including genome editing and concluded that the current legal framework is no longer fit for purpose. Therefore, the Commission proposed to initiate a targeted policy action on plants obtained from certain NGTs, specifically ‘targeted mutagenesis’ and ‘cisgenesis’.

The CAS & EU-SAGE conference will assess the status of research and developments in genome editing in plant breeding and how this differentiates from classical GMO technology. In doing so, the conference aims at providing an overview of state-of-the-art scientific evidence with respect to applications of genome edited crops and the possible impact of the technology for providing solutions in the transition to more sustainable agriculture as outlined in the ‘Farm to Fork’ strategy and ‘European Green Deal’. In addition, the CAS & EU-SAGE conference will address the potential socio-economic dimension of the use and cultivation of genome-edited crops in Europe as well as the impact of narratives in public opposition towards agricultural innovation, and how to counter this in future communication efforts. Finally, recommendations will be put forward on how the potential of genome-edited crops for more sustainable agriculture in Europe can be established with broader societal support.

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October 13

12:30–13:30 Lunch

13:15–13.45 Registration

13:30–14:00 Welcome and Introduction

Eva ZAŽÍMALOVÁ, President of the Czech Academy of Sciences, Czech Republic

Veronika VRECIKOVÁ, Member of the European Parliament, Czech Republic

Karel BLÁHA, Ministry of the Environment, Czech Republic

14:15–14:45 Keynote

Dirk INZÉ, Coordinator of the EU-SAGE network, Belgium,

Gene editing for crop improvement: the quest for a science based policy making

14:45–15:50 Session I. The science behind genome editing of plants

Jaroslav DOLEŽEL, Institute of Experimental Botany of the Czech Academy of Sciences, Czech Republic, *Leveraging Mother Nature's inventions to breed custom-designed crops*

Aleš PEČINKA, Institute of Experimental Botany of the Czech Academy of Sciences, Czech Republic, *New genomic techniques – Scientific discovery of the century*

Oana DIMA, EU-SAGE, Belgium, European Sustainable Agriculture Through Genome Editing – *The role of scientists in policy making*

15:50–16:20 Coffee break

16:20–17:50 Session II. The potential of genome editing to address the sustainability

René CUSTERS, Vlaams Instituut voor Biotechnologie, Belgium, *Regulatory conditions necessary to unlock the genome editing potential*

Petra JORASCH, Euroseeds, Belgium, *How plant breeding innovation can help reconciling sustainability with agricultural productivity*

Dennis ERIKSSON (online), INN University, Norway

Irene Sacristán SÁNCHEZ (online), DG Health and Food Safety, European Commission, Belgium, *Policy initiative on plants obtained by certain new genomic techniques – Sustainability aspects*

17:50–18:00 Closing remarks

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October 14

8:30-9:00 Registration

9:00-9:10 Welcome and Introduction

9:10-10:50 Session III. Potential impact of genome-edited crop cultivation and use in Europe

Kai PURNHAGEN, University of Bayreuth, Germany, *Regulating NGT in the EU*

Herbert DORFMANN, Member of the European Parliament, Italy, *The ongoing political discussion on NGTs at EU-level*

Gregory JAFFE, Center for Science in the Public Interest, USA, *Securing Societal Benefits from Gene Editing*

Martin LEMA, Quilmes National University, Argentina, *Experience from Argentina and LATAM countries*

Gwen SWINNEN, GeneSprout Initiative, Switzerland, *GeneSprout Initiative – A young plant scientist initiative for open dialogue on genome editing*

10:50-11:20 Coffee break

11:20-13:20 Session IV. Societal aspect and communication about plant breeding innovations

Michaela ŠOJDROVÁ, Member of the European Parliament, Czech Republic, *The importance of public communication on NGTs*

Christian KAISER, Cluster of Excellence on Plant Sciences, Germany, *Science communication at the crossroads – Discussing plant breeding from knowledge to values*

Svenja AUGUSTIN, Cluster of Excellence on Plant Sciences, Germany, *Key experiences from communicating the benefits of genome editing to German politicians*

Jitka GÖTZOVÁ, Ministry of Agriculture, Czech Republic, *Safety of Agri-Food Chain & Innovation*

Georges FREYSSINET, Association Française des Biotechnologies Végétales, France, *Enabling genome editing to make European agriculture more sustainable*

Andrzej NOWAK, Re-Imagine Europa, Poland

13:20-13:30 Closing remarks / Outlook

Tom VANDENKENDELAERE, Member of the European Parliament, Belgium

13:30 Lunch