Online Conference: Technical Potential and Risks of Genome Editing

Why ‘New Genetic Engineering’ of plants needs to be regulated

27 November 2020
10:00-12:30 CET

Please register by email to: info@testbiotech.org [1]

Aims and background:

Our conference aims to inform policy makers of scientific facts and arguments relevant to the regulation and application of New Genetic Engineering (New GE), with a focus on genome-edited plants.

The debate on genome editing and its regulation is gaining momentum on the agenda of EU policy makers. The Commission is currently preparing a study on the implementation of EU GMO law in regard to new genomic techniques. It is becoming increasingly important for policy makers to understand the technical potential, the associated risks and regulatory challenges that new technologies and tools such as CRISPR/Cas present.

The content:

The conference provides an overview of current scientific findings on genome editing, with special focus on GE plants. It evaluates the findings from the perspective of protecting human health and the environment, and is supplemented by contributions from two regulatory agencies.

The conference aims to explain the differences in genome editing compared to conventional breeding and natural processes, taking into account:
- the technical potential;
- the obtained biological characteristics;
- unintended effects;
- environmental risks;
- scientific knowledge and research needs.

In addition, we will provide an overview of the technical features of NGTs and explore on-target and off-target effects of CRISPR/Cas gene scissors.

The program:
Dr. Katharina Kawall, Project Genetic Engineering and Environment (FGU):
"Technical characterization of CRISPR/Cas and the differences to conventional breeding" [2]

Dr. Michael Eckerstorfer, Land Use & Biosafety Unit, Environment Agency Austria (Umweltbundesamt):
"Biosafety of genome-edited plants: Challenges for the risk assessment" [3]

Dr. Christoph Then, Testbiotech – Institute for Independent Impact Assessment of Biotechnology:
"Overview on frequently asked questions & answers regarding the regulation of New GE" [4]

Dr. Wolfram Reichenbecher, Biotechnology Department, German Federal Agency for Nature Conservation (BfN):
"Comments from a risk assessor's perspective" [5]

Moderation:
Astrid Österreicher, Testbiotech

The Audience:

The online seminar is aimed primarily at providing information to EU institutions, particularly the Members of Parliament and the EU Commission. Registration must be confirmed in order to participate in the seminar.

Selected publications:

FGU:
Kawall, K. (2019) New Possibilities on the Horizon: Genome Editing Makes the Whole Genome Accessible for Changes; Front. Plant Sci., 24 April 2019 [6]

Kawall, K., Cotter, J., Then, C. (2020) Broadening the EU GMO risk assessment in the EU for genome editing technologies in agriculture; Environmental Sciences Europe, 11 August 2020 [7]

Umweltbundesamt and BfN:
Eckerstorfer, M.F., Dolezel, M., Heissenberger, A., Miklau, M., Reichenbecher, W., Steinbrecher, R.A., Wassmann, F. (2019) An EU perspective on biosafety considerations for plants developed by genome editing and other new genetic modification techniques (nGMs); Front. Bioeng. Biotechnol., 05 March 2019 [8]

Eckerstorfer, M.F., Engelhard, M., Heissenberger, A., Simon, S., Teichmann, H. (2019) Plants Developed by New Genetic Modification Techniques—Comparison of Existing Regulatory Frameworks in the EU and Non-EU Countries; Front. Bioeng. Biotechnol., 19 February 2019 [9]

Testbiotech:
Genetic engineering endangers the protection of species [10]
Why New GE needs to be regulated [11]

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Links
[1] mailto:info@testbiotech.org [2]
https://www.testbiotech.org/sites/default/files/2020_11_27_Presentation_Kawall.pdf [3]
https://www.testbiotech.org/sites/default/files/2020_11_27_Presentation_Eckerstorfer.pdf [4]
https://www.testbiotech.org/sites/default/files/2020_11_27_Presentation_Then_0.pdf [5]

https://www.testbiotech.org/sites/default/files/2020_11_27_Presentation_Reichenbecher_0.pdf [6]
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