

PRESS RELEASE

Bundesverband Deutscher Pflanzenzüchter e.V.

Kaufmannstraße 71–73 53115 Bonn T: 0228 98581-10 F: 0228 98581-19

info@bdp-online.de **bdp-online.de**

Plant Breeders initiate joint project on new breeding methods

Reduced use of plant protection products through fungal disease tolerance in wheat via CRISPR/Cas application

Optional: Teaser

Bonn, 17 September 2020. Today, the German Plant Breeders' Association (Bundesverband Deutscher Pflanzenzüchter e. V. - BDP) presented the research project PILTON at a press conference in Berlin. The project, supported by nearly 60 plant breeding companies, aims at developing wheat plants that exhibit improved, multiple and durable fungal disease tolerance via application of CRISPR/Cas technology. "The project will investigate the benefits of new breeding methods for a resource-friendly and productive agriculture. More specifically, the aim is to evaluate the potential for saving plant protection products", explained Stephanie Franck, president of BDP.

Plant breeders intend to demonstrate within the course of the project, that new breeding methods help to generate plants with important properties that otherwise could only be obtained with considerable delay, if at all. Dr. Klaus Wagner, president of the Agricultural Union of Thuringia (Thüringer Bauernverband e.V.), pointed to the urgent need of farmers to deploy adapted plant varieties as soon as possible. "Climate change and a shortfall of available plant protection products pose a challenge for farmers in maintaining stable yields and high quality levels. This is why we need new methods in plant breeding. We cannot afford to renounce them", he affirmed.

In the course of the project, pathogen defense mechanisms will be enhanced by inactivating one of the plant's own regulator genes. "We expect that this will result in a broad and durable tolerance against fungal diseases like wheat leaf rust, stripe rust, septoria leaf blotch and fusarium head blight (scab)", Dr. Anja Matzk, Head Plant Biotechnology Innovation at the plant breeding company KWS, described the goal to one of the project partners. Necessary steps to accomplish the research project goals will entail targeted mutagenesis using Cas endonuclases. To this end, the project will exclusively edit individual wheat genes already present in the plant's genome in a very targeted way.

Moreover, plant breeders will investigate the accessibility of current CRISPR/Cas methods for plant breeding companies in light of intellectual property rights. Licence structures of providers and the requirements to be fulfilled by potential licensees need to be analysed regarding their alignment with the abilities of German plant breeding companies.

A core question evolves around how research results of the project can be implemented and used in agricultural practice. Therefore, evaluation of fungal disease tolerance in field trials is an essential prerequisite. The European Court of justice ruled in 2018 that plants developed through application of new breeding methods are generally considered genetically modified organisms (gmos). In consequence, regulatory requirements and their impact render the application of new



breeding methods virtually impossible in practice. "Considering the current scientific knowledge there is no reason to regulate plants as gmos that cannot be distinguished from conventionally bred plants or plants that could have occurred naturally. The legislation needs to be adjusted accordingly", Franck demands.

More detailed project information is available at https://pilton.bdp-online.de/.

German Plant Breeders' Association - Bundesverband Deutscher Pflanzenzüchter e. V. (BDP):

The German Plant Breeders' Association (BDP) represents the professional interests of its members – plant breeding companies for agricultural plants, vegetables, ornamental plants or grape vine, or seed traders. Approximately 130 member companies are breeding or trading seeds of agricultural or horticultural plants, 58 of which are operating own breeding programmes. Most companies are working with more various crops. BDP works on national and European level for a legal framework that is best suited to promote plant breeding and the seed industry as well as for the organisation of plantresearch, the promotion of new technologies and the further enhancement of plant variety protection and seed marketing schemes.

Contact:

Bundesverband Deutscher Pflanzenzüchter e. V. (BDP) Ulrike Amoruso-Eickhorn Head of Communication and Strategy Kaufmannstraße 71-73, 53115 BONN, GERMANY Phone.: 0228 98581-17, Fax: -19 E-mail: ulrike.amoruso@bdp-online.de www.bdp-online.de; www.diepflanzenzuechter.de Facebook: www.facebook.com/diepflanzenzuechter.de Twitter: www.twitter.com/DialogBDP Instagram: https://www.instagram.com/diepflanzenzuechter/