

CAMPAIGNING FOR A LAW THAT ALLOWS CRISPR-CAS IN PLANT BREEDING

A group of young researchers at Wageningen University & Research and Ghent University are fighting for permission to use technologies for the precise modification of DNA in plant breeding. To achieve this, they are talking to policymakers at the European Court of Justice.

CRISPR-Cas allows precise mutations in the DNA of plants, animals, viruses or bacteria. In 2018, the European Court of Justice ruled that plant breeding with CRISPR-Cas was covered by the strict legislation on genetically modified organisms (GMO). That means crops that were modified using CRISPR-Cas have to go through an expensive, intensive authorization process.

PROTEST

Protests have come from many sides and various initiatives have started to try and reverse the Court's decision. One such is the GeneSprout Initiative, set up in Wageningen, which gives voice to the concerns of young research-

ers. 'Students and PhD candidates who work with CRISPR-Cas regularly have innovative and valuable ideas while doing their degree or research, but they are unable to put them into practice in Europe because of the legislation. That forces them to look for jobs outside Europe. After all, CRISPR-Cas *is* allowed in countries such as China, Canada and the US,' says PhD candidate Juriaan Rienstra of the GeneSprout Initiative. The Initiative is convinced that precise mutagenesis techniques are a valuable addition to conventional techniques. Making changes by crossbreeding — the conventional method — can take years and is very labour intensive. The same changes can be made in one go if you use CRISPR-Cas. 'Europe is missing out on a lot of opportunities by sticking to this strict GMO legislation,' says Rienstra.

TALKS

The GeneSprout Initiative wants the GMO legislation to be amended so that use of targeted mutagenesis such as CRISPR-Cas is permitted

in plant breeding. To achieve this, the young researchers have started talks with policymakers in Brussels. It turned out that some MEPs, such as Esther de Lange of the Dutch CDA party, are in favour. 'While we are just in the initial phase, this is already a step in the right direction,' says Rienstra.

INTERNATIONALIZATION

At present, the GeneSprout Initiative is mainly active in the Netherlands and Belgium. But their goal is to become bigger, explains Rienstra. 'We are aiming for internationalization so that the GeneSprout Initiative becomes a Europe-wide endeavour. In addition to politicians, we also want to give the general public more information about CRISPR-Cas and foster an open dialogue. We hope this will encourage broad support among the public for a change of policy.'  NWH