

## **New Procedures in Genetic Engineering Positioning of VLOG**

In recent years, new procedures for the genetic modification of crops and farm animals have been developed. These procedures, also called genome editing, are supposed to make it possible to modify the genetic material in a faster and more targeted manner than in previous genetic engineering procedures. With the help of these technologies the structure and/or the activity of genes can be modified or additional DNA sequences can be introduced into the genetic material. The individual procedures can be combined and used repeatedly. Through additional cross-breeding, multiple modified characteristics can accumulate in plant varieties or animal breeds. In this manner, the genetic material can be modified in a chosen location or in multiple locations as well as in larger segments. The new procedures include the use of genetically engineered nucleases (molecular scissors) as in CRISPR-Cas and the use of oligonucleotides (short synthetic DNA sequences that are introduced into cells).

In contrast to the use of random mutation, with the help of new genetic engineering procedures one intervenes directly on the level of the genetic material. Even among promoters of the new procedures it is undisputed that undesirable side-effects may result from this as well. It is therefore a fact that plants and animals produced with the new procedures must be thoroughly examined for risks before they can be used in agriculture and food production. According to existing legal opinions, these procedures are interventions in the genetic material that require regulation pursuant to EU genetic engineering law. This means that plants and animals modified in the manner must undergo an approval process including safety assessment before being released and marketed or imported, and: they must be traceable and labelled.

The EU Commission has not yet positioned itself on how it wishes to classify the new procedures. Meanwhile the biotechnology industry aims to having the respective plants and animals approved without GMO risk assessment and labelling. For VLOG, strict regulations for these new genetic engineering procedures are indispensable because:

- Currently it cannot be assessed to what extent the individual procedures or products that originate from them can be considered safe; rather, each one of them must be tested and risk-assessed on a case by case basis.
- Otherwise, transparency and free choice for consumers, and protection of GMO-free agriculture and food products cannot be ensured.
- Organisms exempt from regulation cannot be monitored and cannot, in an emergency, be withdrawn from the environment and the food chains.
- The abundance of genetically modified organisms to be expected can quickly create a situation in which an extensive loss of control by the authorities and in the food industry could occur while the precautionary principle would be abrogated.

In light of this, VLOG also emphasizes its responsibility for the “Ohne GenTechnik” seal assigned to it by the [German] Federal Ministry of Food and Agriculture (BMEL).

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