IFOAM ORGANICS INTERNATIONAL

Genetic Engineering and Organic Agriculture

January 22, 2015 | Bonn, Germany | Name, Position

Position approved in 2002 in Canada

Position Paper

INTERNATIONAL FEDERATION OF ORGANIC AGRICULTURE MOVEMENTS

Genetic Engineering and Genetically Modified Organisms

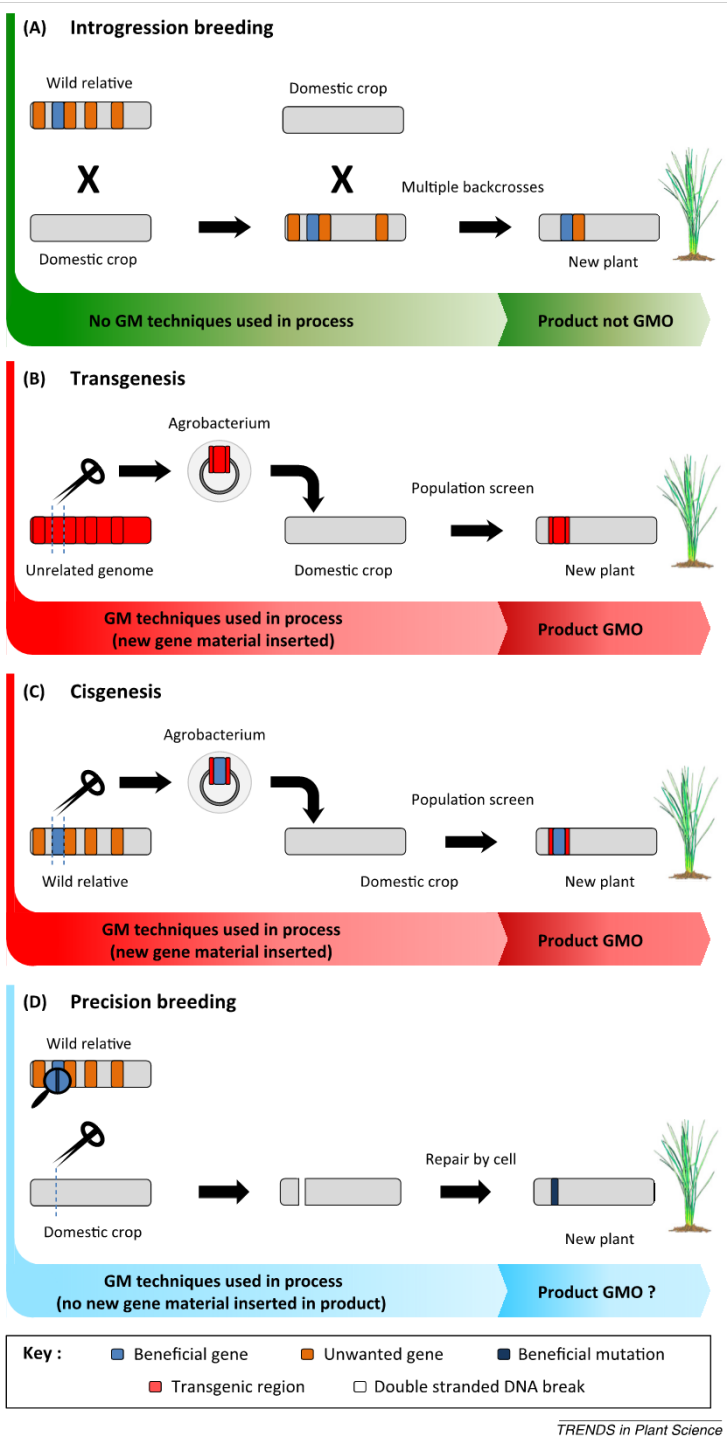
Introduction

The introduction of Genetic Engineering into agriculture has confronted the organic movement with new challenges. The purpose of this paper is to provide IFOAM and its internal bodies with the Federation's position on Genetic Engineering; and to guide IFOAM members in the development of their own positions.

The position has a twofold perspective:

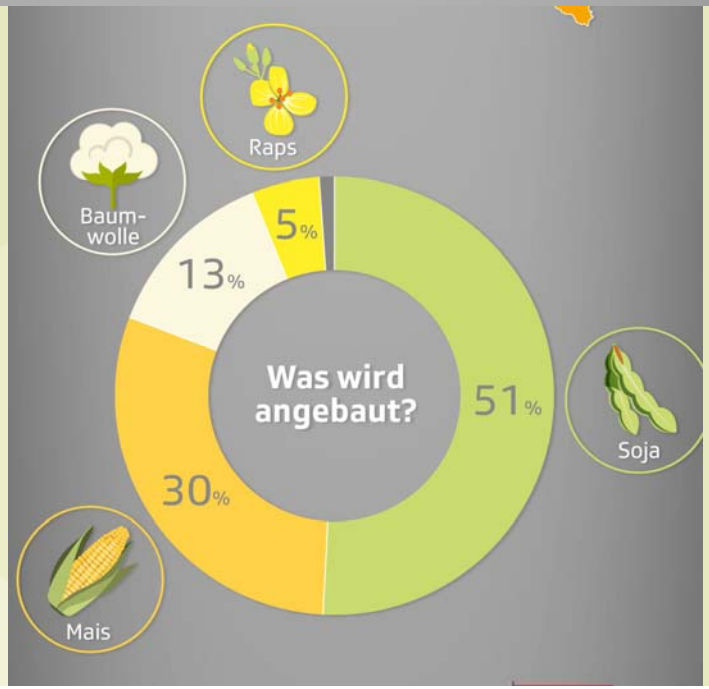
- A political focus on what IFOAM wants.
- A practical focus on what is feasible. (This is especially relevant in relationship to standards. Organic agriculture operates according to set requirements and it is critical that those requirements are practically achievable.)

Based on this position, strategies will be developed. Public materials and statements by IFOAM shall follow this position.


(A) Introgression breeding
Wild relative
Domestic crop
X
X
Multiple backcrosses
Domestic crop
New plant
No GM techniques used in process
Product not GMO
(B) Transgenesis
Agrobacterium
Population screen
Unrelated genome
Domestic crop
New plant
GM techniques used in process
(new gene material inserted)
Product GMO
(C) Cisgenesis
Agrobacterium
Population screen
Wild relative
Domestic crop
New plant
GM techniques used in process
(new gene material inserted)
Product GMO
(D) Precision breeding
Wild relative
Repair by cell
Domestic crop
New plant
GM techniques used in process
(no new gene material inserted in product)
Product GMO ?
Key :
Beneficial gene
Unwanted gene
Beneficial mutation
Transgenic region
Double stranded DNA break
TRENDS in Plant Science

Weltweite Gentech-Anbaufläche
(in Mio. Hektar)

'09	134
'10	148
'11	160
'12	170
'13	175
'14	181
'15	179



GENTECHNIK in der LANDWIRTSCHAFT

IFOAM ORGANICS INTERNATIONAL

General Assembly in October 2016

2. NEW GMO POSITION

IFOAM – Organics International held a pre-conference on the topic of GE and GMOs prior to the official start of the Organic World Congress in Istanbul. At that session, a working group formed and provided initial content toward the development a new version of the position paper on GE and GMOs. The working group was expanded in the subsequent months to include additional interested parties. It created in the first part of 2015 a new draft of the position paper that was shared with all IFOAM – Organics International Affiliates in the second half of 2015, in order to collect feedback. That feedback was incorporated into a newer draft that was the object of a public global consultation in March 2016. The feedback to that consultation was in turn used to make the draft we now present to you for amendments.

MOTION | In order to ensure all new technology is addressed regarding its role in Organic Agriculture, IFOAM - Organics International adopts a new position paper on genetic engineering which replaces **the one adopted in 2002**.

Amendments may be made to the new position paper. The full text of this position paper can be found **HERE.**

Content of new GMO Position Paper

- **Definitions, Scope**
- **GMO are excluded from Organic Systems**
- **Genetic Engineering has not been developed and used responsibly**
- **Development of Genetic Engineering must be based on clear evidence of its benefits**
- **Ensure the common good: reform public policy and law regarding genetic engineering and the the release and market presence of GMOs**
  A. Assure public access to genetic resources
  B. Enable and increase efforts to provide safer, healthier, more effective, and sustainable alternatives to GMOs
  C. Reverse the spread of bad practice and products of genetic engineering.
- **Coordinate Actions in the market**
  A. Proactively build well-defined non-GMO value chains
  B. Employ testing and thresholds in a manner that serves but does not penalizes organic producers.
  C. Regulate the market in a fair manner
  D. Coordinate communication and information sharing.

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Important points

- Broad definition of GE, not only transgenic: Plant, animals and microorganisms
- Organic is not a claim of absolute freedom from contamination of presence of GE materials in products. It is a claim that organic producers do not knowingly use such technology
- POA, Precautionary principle for research and release. Reality of use affects principles of ecology, health and fairness.
- Organic Movement: Freedom to remain GMO free
- In general: Products such as GMOs must not be introduced , unless they have been subjected to a rigorous, democratic, and transparent assessment. Any introduction of GMOs should be limited to controllable circumstances.

- Calls for governmental recognition of the negative impacts caused by GMOs already released.
- Not the burden of organic producers to prove that the materials have no detected GMOs or derivatives.
- Competent testing can be a useful management tool. Those responsible for release of GMOs to the market should pay the costs of testing. High-risk points of contamination should be monitored.
- In some countries, it may be appropriate to set an action threshold, which if exceeded requires investigation to find the root cause of the contamination, with appropriate remediation.
- Penalties should be imposed against trespassers for cases of contamination of non-GMO crops, including for market losses and/or loss of organic certification.

New Breeding Techniques (GA Motion)

- No final conclusions yet
- The World Board temporarily approved the position paper by IFOAM EU
- A special working group plans to conclude until the GA 2017 in India

IFOAM EU and New Breeding Techniques (NPBTs)

The IFOAM EU Group considers the NPBTs as techniques of genetic modification leading to GMOs according to the existing EU legal definition.

The following NPBTs shall fall within the scope of the GMO legislation:

- Oligonucleotide directed mutagenesis (ODM)
- Zinc finger nuclease technology types I to III (ZFN-I, ZFN-II, ZFN-III)
- CRISPR/Cas
- Meganucleases
- Cisgenesis
- Grafting on a transgene rootstock
- Agro-infiltration
- RNA-dependent DNA methylation (RdDM)
- Reverse Breeding
- Synthetic Genomics

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For more information regarding these techniques, see Steinbrecher (2015), available at: www.econexus.info/sites/econexus/files/NBT%20Briefing%20-%20EcoNexus%20December%202015.pdf and Ledford (2015), available at: www.nature.com/news/crispr-the-disruptor-1.17673#/b1


Thank You.

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THANK YOU!

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