

Forum:	The Commission on Sustainable Development (CSD)
Issue:	The Question of Controlling Genetically Modified Edibles
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What is genetic modification?

Every living thing, whether it is animals or plants, are made up of genes, which are sections of DNA. These genes control every process within our body; they control everything from the colour of our eyes or a plants ability to withstand certain pests or temperatures. These genes have changed naturally over the course of time through natural mutations, but now humans have found a way to actively change these genes through a process called genetic modification.

Genetic modification (GM) is a process to alter the genes; this can be done through taking genes from one organism and inserting it into another organism or it can be a process of radiating plants to shuffle the DNA and thereby creating new and more desirable traits.

Genetic modification is thought to be controversial because of the fact that humans are changing nature at its most fundamental level. Even though it is done for beneficial reasons any potential long-term consequences are still relatively unknown.

Why is genetic modification a pressing issue?

One of the biggest issues in the world is hunger even though the world is now producing enough food for the entire world, one person in eight goes to bed hungry every night. There are different causes for this such as:

- Poverty
- Climate and weather conditions
- Lack of investment in agriculture
- War and displacement
- Unstable markets

Some of these issues are reasons for using genetic modification, essentially to combat hunger. GM can improve a plants ability to withstand harsh climate and weather conditions and it can help a plant to increase its yield.

On the other hand there are arguments against the use of GM as well, there are the risks of new allergies, people, who have never been allergic to a food, might have an allergic reaction to a genetically modified food if it has a gene from another species.

Genetically modified foods can help the environment by reducing the use of fertilizers and pesticides but there are also risks of ecosystems suffering if genetically modified plants breed with wild plants and thus creating so-called “super-weeds”.

GM now concerns animals as well; these have many of the same pros and cons as genetically modified plants. They can grow faster for less food than their non-genetically modified counterparts but they can be a threat to the environment and the eco-systems.

Despite of the controversy of GM, it is widely used in North America in order to improve crops for example to require less herbicide, but the wanted qualities in North America are not necessarily the same as in Africa because of different climate and soil conditions.

What should be done about genetically modified edibles? Should genetically modified edibles be included in aid packages or not? Can the world situation be improved without GM and if so, how?

Further reading

- <http://legacy.jyi.org/volumes/volume6/issue2/features/williams.html>
- <http://biomed.brown.edu/arise/resources/docs/GM%20foods%20review.pdf>
- <http://www.wfp.org/hunger>
- <http://www.un.org/en/index.html>
- <http://www.loc.gov/law/help/restrictions-on-gmos/>
- <http://webarchive.nationalarchives.gov.uk/20121212135622/http://www.bis.gov.uk/files/file15655.pdf>
- http://www.foe.co.uk/sites/default/files/downloads/gm_crops_food.pdf
- <http://www.fao.org/home/en/>