



Why Zambia's say no to GMO!

ZAMBIA ALLIANCE FOR AGROECOLOGY AND BIODIVERSITY (ZAAB)

GM CROPS ARE DIFFERENT TO CONVENTIONALLY BRED CROPS

'Modern Biotechnology' and the production of Genetically Modified Organisms (GMOs) is different to Conventional Biotechnology or conventional crop breeding. GM crops are grown from the seeds of plants that are created in a laboratory. Scientists create these unnatural plants by mixing genes from a crop plant like maize, with genes from other unrelated organisms like bacteria, viruses, plants, or animals. Unlike conventionally bred seed, GMOs must go through special risk assessment and monitoring.

HERBICIDE AND PEST RESISTANT GMOS

There are two main categories of GM crops:

Pest resistance: GM plants created with an inserted gene, taken from another organism, that makes the plant produce a poison to kill certain pests that feed on it.

Herbicide resistance: GM plants created with an inserted gene, taken from another organism, that enables the crops to be sprayed with herbicides without being damaged.

Some plants are created to be both herbicide and pest resistant. No GM crops are engineered for increased yields.



GM IN ZAMBIA

Zambia does not cultivate any GMOs and has excellent safety standards to protect our citizens, our environment and our food system from potential risks.

The biotechnology industry wants these standards to be lowered to make their business easier, and to not be held responsible for any potential risks. The biotech industry and trade groups are lobbying for changes to the Biotechnology and Biosafety Policy (BBP) of 2003 and Biosafety Act of 2007.

FARMING METHODS

Adopting GM seeds means adopting a whole new type of agricultural system. Farmers often have to change from production methods that they know and are in control of, to growing monocrops of legally protected seed with chemicals. This means that farmers have to buy new seed every year and be dependent on expensive outside inputs.

SEED OWNERSHIP

The new genes inserted into GM crops are patented (owned) by big seed companies like Syngenta or Monsanto. This means that farmers can only use the seed for 1 season. It is illegal to save and replant or share and exchange GMO seeds.

ZAAB SECRETARIAT

C.O. Caritas Zambia, Kapingila House, Plot 60, Kabulonga Road, Lusaka, Zambia
Tel: +260 211260980/261789 | network@zambianagroecology.org

www.zambianagroecology.org

IMPACTS AND CONCERNS

There are many reasons why you should be concerned about GM crops.

1. GMOS POSE HEALTH RISKS

Independent scientists have uncovered worrying issues that urgently need further research, including severe impacts on the gut/stomach, kidneys, liver, immune system and the nutritional content of GM food, to name a few.

2. GM IS INCREASING THE USE OF CHEMICALS

88% of the GM crops grown worldwide in 2016 were herbicide tolerant. This means that farmers can spray glyphosate/ RoundUp on the crop without damaging it. This is supposed to make weed management easier, but weeds are becoming used to RoundUp, so it no longer works. GM companies are creating crops that can withstand many herbicides to try and get rid of these "super weeds". Farmers may now need to spray glyphosate, glufosinate, 2,4-D and dicamba to get rid of them. These poisons end up in our water, soil and food. Farmers and farm workers are regularly exposed to these poisons that cause many health problems, including cancer.

3. WILL GMOS COMBAT FALL ARMY WORM?

The fall army worm (FAW) can easily become resistant to toxins produced by GMO crops. This is not a reliable and sustainable solution. Scientists propose that creating a healthy eco-system, and including biological controls such as certain fungi and insects, are better solutions.



4. GMOS DISRUPT THE FOOD WEB

GMOs can disrupt the entire food web and impact on aquatic systems. GMOs can have a negative impact on pollinating insects, such as bees. GMOs can disturb the balance of pests and predators in the field, negatively impacting insects that are 'farmer's friends', such as ladybirds and lacewings. Bt genes from GM crops disrupt the food web in the soil. Ecological health begins in the soil as it is the most vital source of nutrients for plants.

5. GMOS ARE NOT APPROPRIATE FOR SMALLHOLDERS

GM seeds are more expensive than conventional seed, require costly inputs and specific, often unrealistic, management procedures for smallholders.

Farmers may not save or share seed, making them and consumers dependent on seed and agrochemical corporations. If farmers don't have enough money for these inputs there is no safety net. Loans for inputs can put farmers in debt if they cannot sell their crop for the right price or if it fails for any reason.

6. GMOS RESTRICT ACCESS TO MARKETS

Many markets around the world do not accept GM crops or have complicated procedures to get import and export permits. At least 64 countries have GM labelling laws because consumers don't want to eat GMOs. Zambia's GM-free status gives a competitive advantage and access to many more markets. Once GMOs are allowed to be cultivated, contamination is inevitable along with potential loss of markets. Opening Zambia to GMOs is also opening our markets to influx of GMO commodities from other countries. This is concerning for consumers, who may not want to eat GMOs, as well as farmers, as markets may be undercut and flooded with cheap imports.

* With thanks to Biowatch South Africa for information from their GMO Handout: <http://www.biowatch.org.za/docs/train/2015/GM%20Crops%20April%202015.pdf>
ZAAB thanks the Seed Knowledge Initiative (SKI) for their support.