

Biodiversity and Biosafety Association Kenya SACDEP Training Centre Upper Hill Road, Thika, Kenya. info@kbioc.org Reasons to avoid GMO'S



A GMO, or genetically modified organism, is a plant, animal, microorganism or other organism whose genetic makeup has been modified using recombinant DNA methods (also called gene splicing), gene modification or transgenic technology. This relatively new science creates unstable combinations of plant, animal, bacterial and viral genes that do not occur in nature or through traditional crossbreeding methods.

GMO's in Kenya: In 2012, the Kenyan parliament placed a ban on importing genetically modified foods. Citing health concerns as the main reason for the ban, Kenya joined countries such Norway, Benin, Germany and Switzerland in taking a legal stand against GMO's. The push to lift the ban on GMO's has come under increasing pressure, particularly during times of drought. Proponents argue that genetic engineering is a modern science and technology that the country should accept because it will bring farmers drought resilient and pest resistant crops, increase food production and offer Kenyans foods that have fortified nutritional value.

## 15 REASONS TO AVOID GMO'S

## **Health harms**

- 1. GMOs are grown with toxic chemicals and resulting pesticide residues are known to be harmful to human health.
- Research has shown that laboratory mammals fed GMOs suffer adverse affects that include damage to kidneys, liver, and heart. Additionally, their immune systems were compromised and in some cases brain size was reduced.

## **Environmental harms**

- **3.** GMO crops require huge amounts of chemicals that are harmful to soil, water, the atmosphere, and living organisms.
- 4. GMOs increase the need for stronger and more poisonous pesticides. More than 80% of all GMOs grown worldwide are engineered for herbicide tolerance. As a result, use of toxic herbicides like Roundup has increased 16 times since GMOs were introduced.

- 5. GMOs are causing a growing epidemic of superweeds. These massive weeds have evolved a resistance to glyphosate, a chemical used on GM crops. Stronger toxic chemicals and soil-eroding tillage operations are required in order to eliminate superweeds.
- 6. GMOs contribute to global warming. GM crops require synthetic nitrogen fertilizers, which are responsible for approximately 60% of total emissions of nitrous oxide, a greenhouse gas nearly 300 times more potent than CO2. GM crops use high amounts of fossil fuels through the production of synthetic nitrogen fertilizers.
- **7.** GMO practices contaminate our organic and local food and seed systems.
- Beneficial insects can be harmed. Recently, pesticides called neonicotinoids have been blamed for the collapsing bee populations.

## Harms to social and human rights

- GMOs are promoted as way to feed the world and mitigate hunger; however, numerous studies demonstrate that the GM crops do not produce higher yields as claimed.
- 10. Because GMOs are novel life forms, biotechnology companies have been able to obtain patents with which to restrict their use. As a result, the companies that make GMOs now have the power to sue farmers whose fields are contaminated with GMOs, even when it is the result of inevitable drift (cross pollination) from neighboring fields. GMOs therefore pose a serious threat to farmer sovereignty and to the national food security of any country where they are grown.
- 11. GMOs lead to corporate control over seed and food. Today only one company controls about 95% of GM seeds. This limits access to seeds, which are the center of food and life.
- 12. These large agri-corporations and current seed laws do not let farmers save seeds, a basic practice that has continued for centuries to ensure food security.
- **13.** GMO agriculture is an extension of current industrial-farming practices that have resulted in the loss of family farms and farmer livelihoods.
- 14. In Kenya specifically, the impending growth of GM maize is likely to interfere with the rights of consumers. It contravenes the provisions of the Kenyan Constitution, which makes it mandatory for producers to provide information to consumers, such as whether food has genetically modified content. Article 46(1b) states that consumers have the

- right "to information necessary for them to gain full benefit from goods and services," while 46(Ic) gives consumers the right to "protection of their health, safety, and economic interests." According to the Kenya Law Reform Commission, this article applies to goods and services offered by public or private entities. In the event that there is contamination of maize varieties with GM traits across the country, this will violate constitutional provisions on the right to choice.
- 15. There is growing evidence that Kenya's regulating agencies are not up to the task of guaranteeing biosafety in the country. The NBA, Kenya Bureau of Standards and the Kenya Plant Health Inspectorate Service (KEPHIS) are characteristically weak and not fully able to control, test, monitor or instigate remedial measures if negative consequences arise from the impending open cultivation of Bt-maize. Kenya has signed the Cartagena Protocol - an international treaty that regulates the use of GMOs - and has developed regulations, including measures aimed at detecting and monitoring proliferation of GM traits in crops. Despite these initiatives our regulating agencies have illustrated in the past that they do not have the capacity to effectively handle their role, or they have been unwilling to do so.