



## Farmers planting maize that poses threat to humans

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Farmers in one of Kenya's largest grain-producing areas have been cultivating genetically modified maize that is potentially harmful to human health without knowing it.

The *Sunday Nation* can exclusively report that the relevant seeds are sourced from a South African company that is a subsidiary of Dupont, a leading US-based biotechnology firm.

This was revealed to the *Sunday Nation* by officials of the Kenya Biodiversity Coalition (KBioC), a body that brings together 45 farmer groups, NGOs and civil society bodies.

KBioC took samples of maize seeds from agrovet shops in various towns in Rift Valley to Eurofin GeneScan, a specialised laboratory in Europe.

After tests, it was conclusively established that the sample was contaminated with traces of MON810, a genetically modified maize variety owned and marketed by Monsanto, an American biotechnology company.

Documents made available to the *Sunday Nation* by KBioC officials show that they had taken 42 samples of maize seeds from agrovet shops in Kibwezi, Machakos, Thika, Nakuru, Eldoret and Kitale. The officials got several maize seed varieties owned and marketed by local and international seed companies and then ground them into flour. After preliminary testing, 19 of the samples were found to be suspect and shipped to Eurofin for further tests.

"It was then that Eurofin isolated phb30v53, a variety that is owned and patented by Pioneer, a South African company," said Dr Daniel Maingi, a scientist with KBioC. Several South African and European media have since covered the saga.

The variety is named after Pioneer Hi-Bred International, Inc., a subsidiary of the US-based biotech multinational, Dupont. In its website, Pioneer describes itself as "the world's leading developer and supplier of advanced plant genetics to farmers worldwide". It has been a long-time competitor of Monsanto.

### Pioneer denies

But now, Pioneer denies that it has been deliberately exporting genetically modified maize to Kenya. In a telephone interview with the *Sunday Nation*, the head of Pioneer in Africa, Jeff Johnson, denied that his company sells contaminated maize seeds.

"We respect the Kenyan law and go to great lengths to ensure that our seeds are not contaminated. Indeed, our testing protocol conforms to international standards," he said.

Even then, Mr Johnson said that it is not possible anywhere to ensure that maize seeds are 100 per cent devoid of biotechnology material. "Although I have not seen the test results, I am not ruling out anything. It could be possible that the seeds sold in Kenya might be contaminated." However, he added that such contamination is insignificant and is unlikely to compromise the quality of his company's seeds.

Speaking from South Africa, Mr Johnson also said that his company is involved in the marketing of genetically modified maize to countries where it is approved. "We are not selling any such maize in Kenya or any other country in East Africa," he said.

Information on the contamination of the Pioneer maize variety was passed on to relevant arms of the government during a National Biosafety Committee meeting held on February 27 at the offices of the National Council for Science and Technology (NCST) in Nairobi.

In attendance, among others, were representatives from the Ministry of Agriculture, the Kenya Agricultural Research Institute, the Kenya Plant Health Inspectorate Service (KEPHIS) and the University of Nairobi.

During the meeting, KEPHIS representatives revealed that the former Minister for Agriculture, Kipruto arap Kirwa, released the maize seed variety in question into the Kenyan market in 2006 "after it passed all the field test procedures".

The minutes of the meeting also reveal that the Pioneer variety originates from the United States and is reproduced in South Africa before being shipped to Kenya where it is distributed by FarmChem Seed Co. Ltd.

The minutes reveal that on October 31, 2006, FarmChem imported an initial consignment of half a tonne.

### **Long-running suspicions**

The revelation confirms long-running suspicions among many Kenyan farmers that they could have been cultivating genetically modified varieties of maize without being aware of it.

"Initially, we were given the suspect seeds as donations by politicians and we planted them. But when we harvested, the maize started rotting almost immediately," said Isabel Wandati, a farmer and official of a women's group in Butere.

She laments that she finds it impossible to replant the same maize and blames the Kenya Bureau of Standards for not properly inspecting the relevant maize variety.

She adds that instead of arming farmers in Butere with the relevant information on the variety, the local agricultural extension officials have been championing its cultivation.

There is now a danger that the country's entire maize crop could be contaminated with traces of MON810. This is because maize is a cross-pollinated crop and pollen that bears traces of MON810 might be transported by wind from contaminated farms into uncontaminated ones.

The variety is patented by Monsanto and is banned in several European countries because of its negative impact on the environment and its harmful consequences on such useful insects, such as butterflies and bees.

Research conducted in some European countries had shown that feeding mice on the variety damaged their kidneys and livers.

However, its effects on humans is yet to be fully studied since maize is generally not used as human food in Europe and America. It is instead fed to horses and other domestic animals.

Once the country's maize crop is contaminated with genetically modified varieties, Kenya risks losing traditional hybrid varieties that were painstakingly developed by KARI at the taxpayer's expense.

Genetically modified grains are injected with bacteria that produce poison to kill nuisance pests and resist adverse weather conditions.

However, these poisonous bacteria have the downside of potentially destroying the soil by killing helpful bacteria and insects. Also, they compromise food safety and might prove to be harmful to humans over time once the grains are consumed.

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