

PODCAST TRANSLATION (XHOSA INTO ENGLISH)

STUDENT (GIFT HLATSHWAYO): Hello everyone. My name is Gift Hlatshwayo. I am here with an important visitor to inform our nation about science focusing on biotechnology and genetically modified organisms (GMOs). We hear about foods and plants that are genetically modified and it is the truth that these are in our everyday lives even though our people do not understand the contribution of biotechnology in our lives. In 1998 our government allowed release of genetically modified foods such as maize, soybean and cotton. Today, I am here with Prof Ludidi from the university of western cape at the department of Biotechnology. The reason for this podcast is to give understanding to people about science and biotechnology focusing more on GMOs. Thank you Prof Ludidi for your dedication into informing us about GMOs. Please tell us what are GMOs?

PROFESSOR LUDIDI: Hello. Thank you Gift for giving me this opportunity to explain about the GMOs. GMOs are living things for example plants and animals that have been changed by their DNA so they will not be the same as the original, but that does not mean they change completely from their origin. An example if modification is done on maize it does not mean it would change the maize completely, but only a minor change that could cause this maize to have an ability to work in way that the farmers would wish.

STUDENT (GIFT HLATSHWAYO): Oh okay. Thank you, Prof, so how are these GMOs made?

PROFESSOR LUDIDI: It depends on what the person wants the GMO to contain. For an example DNA is taken that has details in each cell of a body or a plant that describe how it should be like or its behaviour. An example I have a DNA that entails how I am to be like from both my parents because I come from them. If a farmer wishes that their maize is not to be infected by certain dangerous insects could take DNA of a toxin known as BT toxin found in bacteria an organism that is not of danger to humans but the insects. To prevent the maize from being infected by the insects, scientists take DNA from the bacteria found in the soil into the maize DNA to enable it to produce the toxin. This allows humans to be able to consume this maize without being in danger because they are not the insects and at the same time other insects such as bees and many more that are not dangerous to this maize are not infected because they are not intoxicated by the toxin so if the DNA of toxin is taken it will only infect only the dangerous insects but not the other insects or humans will be in danger because they are not the target for this toxin.

STUDENT (GIFT HLATSHWAYO): Okay. So why are the GMO foods produced?

PROFESSOR LUDIDI: The reason for production of GMO foods is to allow the opportunity for humans to produce more food that it would be difficult to produce without the GMO foods. The toxin example we just talked, imagine if the farmer was growing the maize and the insects infect the whole field of maize that farmer would lose and at the time we would not have enough food. If we produce GMO maize so that the insects would not infect the maize. So, the main reason for GMO foods is to ensure that there would be enough food for everyone.

STUDENT (GIFT HLATSHWAYO): My last question to you Prof is how the production of GMOs is controlled in our country to ensure safety and health?

PROFESSOR LUDIDI: Our government has a department that is under the department of agriculture. This department is to ensure that all GMOs that are grown or consumed are safe. This is done by

scientists specialising in GMOs from universities and research councils trained with deep understanding of GMOs are appointed by the government. Each time there is a GMO producer, there is a meeting conducted to investigate if the production of this GMOs would be safe and that they would not have negative effects into humans and the environment surrounding us. The government have rules and regulations designed by these trained scientists to make sure every time GMOs are produced are safe for animals, humans and the environment.

STUDENT (GIFT HLATSHWAYO): Thank you very much for informing us about biotechnology in relation to GMOs. It is important that we talk and understand the benefit of science in our daily lives. For more information and questions visit the biosafety SA website at biosafety.org.za, you could follow us on our twitter account at biosafetySA or like our facebook page. Thank you for your time. Love you very much.