P070

Study about gene flow and stability assessment in GM rice (*Oryza sativa* L.)

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Abstract

In agriculture, the rice is the one of important things. Many farmers and scientists have long tried to increase the yield of rice. So many technologies have been developed these days. One type of technology has given rise to a host of concerns and questions, namely Genetically Modified Organisms (GMOs). The increasing cultivation of GM crops has raised a wide range of concerns with respect to food safety, environmental effects and socio-economic issues and now commercially planted on about 100 million hectares in some 22 developed and developing countries. The scientific evidence concerning the environmental and health impacts of GMOs is still emerging, but so far there is no conclusive information on the definitive negative impacts of GMOs on health or the environment. Nevertheless, public perceptions about GMOs in food and agriculture are divided with a tendency toward avoiding GM food and products in many developed and developing countries. Also Korea is one of that country and is not allow the GMOs now. So I studied whether these GMOs are actually dangerous for environment and whether there are differences in cultivar characteristics such as germination test with TTC tetrazolium, germination test in frozen soil and gene-flow test with glufosinate and strip-bar test. With these experiments, we evaluated the agricultural safety of GM rice and to identify and assess environmental risks.

Keywords: rice, GM, weediness, TTC test.

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