

Genetic engineering and food safety

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Genetic Engineering and Food Safety Nowadays the public are focusing more and more attention on genetically modified foods because they are more and more closely linked with our daily lives. So what are genetically modified foods? They refer to crop plants which are created for human or animal consumption using the latest molecular biology techniques. As we all know, such foods have many advantages including pest resistance. Herbicide tolerance, disease resistance, cold tolerance, drought tolerance, salinity tolerance, nutrition, pharmaceutical and so on.

Moreover, supporters believe that because genetic engineering techniques have become simplified in recent years, the methods can be applied to the large-scale production of food and drugs badly needed by the rapidly growing world population. On the contrary, these critics believe that genetic engineering of foods touches on several issues involving the right of consumers to know what is in the food they buy, the right of individual countries to set up standards as they deem fit, the relationship between multinational companies, scientists, farmers, government regulators and so on.

So as far as I am concerned, we ought to be especially cautious with the genetically modified foods considering both their merits and demerits before we make decisions whether to buy them for a person and or whether to Import them for a country. The advantages of genetic engineering exist in many aspects in our lives. Thanks to genetic engineering, more grains have been created to feed the huge population. It can also lead to crops which have lots of excellent characteristics through changing some parts of the DNA of the ropes.

For instance, some crops can shorten their growing periods. Others can resist many adverse conditions such as coldness, diseases, pests, bad weather etc. It is reported that growing genetically modified foods such as B. T. Corn can help eliminate the application of chemical pesticides and reduce the cost of bringing a crop to market. Has created a strain of soybeans genetically modified to be not affected by their product Roundup.

A farmer grows these soybeans which then only require one application of weed-killer Instead of multiple applications, educing production cost and limiting the dangers of agricultural waste run-off. Still others are also very different from the normal ones because they can taste better, be more convenient and more nutritious and be stored longer. In addition, supporters believe that genetically modified foods can potentially solve critical problems of world agriculture, health and ecology. In that case, the genetic engineering indeed has a great number of excellent advantages.

On the contrary, opposition to the genetically modified foods in many countries even in the LISA, where the genetic engineering has been widely adopted in many fields such as agriculture and medicine, is on the rise because they have concerned many potential dangers of them. To begin with, people are concerned that genetic engineering can alter the nutrients In foods. Foreign genes might alter nutritional value of foods in unpredictable ways by decreasing levels of some nutrients while Increasing levels of others.

The changes In food and diet through biotechnology occur at a pace far greater than the scientists' ability to predict the significance of the changes

on genetically modified food products in infant foods. In addition, they even may be potentially poisonous. Genetic modification maybe activates the genes in the food which control the production of poison. For example, a recent article published in Lancet examined the effects of potatoes on the digestive tract in rats. This study claimed that there were appreciable differences in the intestines of rats fed potatoes and rats fed unmodified potatoes.

Yet critics say that this paper, like the monarch butterfly data, is flawed and does not hold up to scientific scrutiny. Moreover, the gene introduced into the potatoes was a snowdrop flower let-in, a substance known to be toxic to mammals. The scientists who created this variety of potato chose to use the Latin gene simply to test the methodology, and these potatoes were never intended for human or animal consumption. Last but not least, they are likely to threaten the biodiversity. Opponents fear that the centralization of crops will create a new threat to crop genetic diversity.

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The potential danger of foods cannot be ignored, either though they have solved plenty of issues for us. I believe that our government has the responsibility to monitor the food security for fear of the existence of tragedy. The related departments have to investigate the potential danger of the genetically modified foods and protect the health of our consumers when approving of importing those foods. In addition, we consumers have the rights to know whether the foods are genetically modified. In conclusion,

Judging from both the advantages and the disadvantages, we must be very cautious when choosing genetically modified foods.