Are Genetically Modified Foods Safe?

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The question as to whether or not genetically modified foods are safe depends on who you ask. The biggest controversy concerning genetically modified foods is whether or not the benefits outweigh their unintended and potentially harmful effects. Producers and investors of such food, look at it as being a way to feed a growing population. Especially those in third-world countries.

Critics warn that we do not know enough about the potential harm that such crops can cause to human health and ecosystems. Some scientists expect that genetically modified organisms cannot be recalled if they cause unintended harmful genetic and ecological effects. Once something is genetically modified, it cannot be reversed. Therefore, to better understand the risks, before going on with this technology, there should be more controlled field experiments along with more research and long-term safety testing. (Miller)

Industrial quantities of pesticides are used in standard commercial agriculture. Organic farming has shown that it is possible to dramatically reduce the use of insecticides. But, they are expensive to produce and buy.

The genetic engineering of foods is done to create crop varieties which are designed to survive difficult environments. If a crop has an enhanced tolerance to drought, then farmers wouldn't have to use as much water to grow them. This, in turn, would help those in third-world countries with poor soil. Also, genetically modified seeds are developed with enhanced

resistance to pests and pathogens, which could help to reduce the use of pesticides. Those who are for the genetically engineering of foods also believe that they will be more nutritious.

Some worry that genetically modified foods will cross-pollinate nearby species and create a new kind of weed that can invade ecosystems and destroy native plant populations. Also, those who are against genetically modified foods fear that the plants and seeds will be patented, causing the control of agriculture to be in the hands of the large companies that produce them. (Ronald)

The projected advantages of genetically modified foods are as follows: (1)They will need less water and fertilizer; (2)They will be more resistant to insects, plant disease, frost, and drought; (3) They will have faster growth; (4) They can grow in slightly salty soils; (5) They will have better flavor and less spoilage; (6) Less use of conventional pesticides to grow them; (7) They tolerate higher levels of herbicide use and have higher yields.

The projected disadvantages of genetically modified foods are as follows: (1) Irreversible and unpredictable genetic and ecological effects; (2) Harmful toxins in food from possible plant cell mutations; (3) New allergens in food: (4) Lower nutrition; (5) Increased evolution of pesticide-resistant insects and plant diseases; (6) Creation of herbicide-resistant weeds: (7) Harm beneficial insects: (8) Lower genetic diversity. (Miller)

According to the Institute for Responsible Technology, " Genetic engineers continually encounter unintended side effects – GM plants create toxins, react to weather differently, contain too much or too little nutrients, become diseased or malfunction and die. When foreign genes are inserted, dormant genes may be activated or the functioning of genes altered, creating new or

unknown proteins, or increasing or decreasing the output of existing proteins inside the plant. The effects of consuming these new combinations of proteins are unknown."

Soybean, corn, cottonseed, and canola are all genetically modified foods. Any other food that has consumed these are also considered genetically modified foods. For example, if livestock has any of these types of food included in their diets, they in turn become genetically modified foods as well. If you don't want to eat genetically modified foods, you should check the labels of the products you buy. the labels should state that they are organic or that they are non-GMO. GMO stands for genetically modified organisms. Also, you can check the ingredients listed on the labels. If the ingredients contain soybean, corn, cottonseed, or canola, then you are purchasing a genetically modified food. Those ingredients are also used to produce vegetable oil for cooking. Those who do not want to consume genetically modified foods should cook in olive oil or butter. (Unintended GMO Health Risks)

The bottom line is that there must be extensive research on a case by case basis to determine which genetically modified foods are safe. The results should then be presented to the Food and Drug Administration for a decision to be made. In the meantime, it is a personal choice as to whether or not a person wants to include foods as such into their daily diets.

Works Cited

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"Unintended GMO Health Risks." Institute For Responsible Technology. 2008. 02 Apr. 2009 <http://www.responsibletechnology.org>.