

Genetically Engineered Foods, Genetically Modified Organisms, Genetically Modified People, What?



The G.E. process **controls the plant characteristics**, rather than influencing it, by inserting the desired gene into another.

Once this process is completed, the food is genetically modified (G.M.) and has been implanted by a genetically modified organism (GMO's) added to it by way of genetic engineering.

Suzanne Wakim, microbiologist has played an important role in discussing the genetically modified food and organism discussion.

She states, "Genetic engineering is a tool, therefore entirely harmless by itself. The question lies with each individual gene that is engineered, and what happens if it escapes into the environment."

Did you know you are the new human lab rat?

As it currently stands, the United States is the leader in the production of genetically engineered foods.

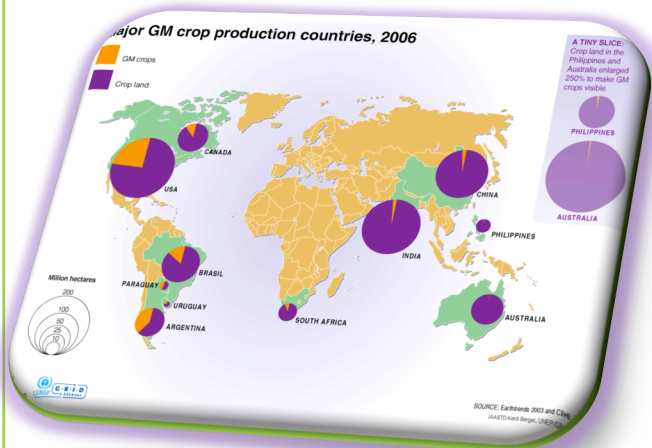
Without a doubt, you have been eating these foods for years and serving them at the dinner table to your family.

If your lab rat status strikes a whisker of concern then you will want to continue.

Defining The Genetically Engineered Process

Genetically engineered (G.E.) process by way of "recombinant DNA techniques" is scientists' way of taking the guessing game out of traditional breeding methods.

Traditional breeding methods use the reproductive system of the plant to selectively **influence characters**



Potential Benefits

Genetically modified foods may contribute to a decrease in environmental pollution and various other benefits.

Some benefits of G.M. foods are increased nutrient contents and drought tolerant plants. Built in defenses allow for decreased pesticide use in our foods, in our mouths, and polluting our water and air.

Steve Sincoff local chemistry professor comments, "The potential reduction of pesticides on our food products is a big plus for genetically modified foods."

Some examples of G.M. foods are a Pluot, and a Tangelo, engineered to have high vitamin C content. Colorful Carrots are another G.M. food that claims increased calcium absorption of 40% more than normal.

Diabetics also benefit from GMO's. Bacteria are engineered to produce insulin produced from animals.

Potential Threats

Some consumers are more concerned with the overall unknown long-term effects rather than current benefits.

Genetically modified foods and organisms show some current promise, but also some alarming health risks for future

health.

A good example of this is the use of a fish gene to genetically modify a tomato that you've consumed. Let's say you are allergic to fish and you eat a tomato without knowing that it has a fish gene.

You may have never had an allergy to tomatoes, but you always have had an allergy fish, therefore you are now allergic to this genetically modified tomato.

You may ask yourself "how will I find this out, how will I know if I am allergic to this modified food?"

The answer is you don't know, you won't know, and you won't find out until you eat it and have an allergic reaction to it.



The United States does not require foods that are genetically engineered to be labeled as a genetically modified organisms.

The government states that as long as G.M. foods are similar nutritionally and as safe as an existing food with a history of safe use, then they are allowed into the food system as “substantial equivalence”. No labels are required to claim genetically modified status.

It is unfortunate that consumers will not be able to make the choice to eat or not to eat G.M. foods.

Other serious complications from genetically engineered foods that have been researched are liver cell changes, cancer cell growth, immune function, and allergic reactions.

As a parent it may be disconcerting to not have control over what you put on the dinner table.

Not only the loss of control, but that the food is potentially dangerous to your family.

Jennifer Carter, fellow parent, food industry employee, and biology graduate suggests, “When you start altering an organisms structure at the genetic level, you open Pandora’s box with the possible consequences of side effects on the ecosystem as a whole.”

Although not sure proof, there are ways to avoid G.M. foods and organisms. Here are some possible alternatives:

- Buy organically
- Buy at your local farmer’s market
- Buy foods that are labeled Non G.M.O.