



Unraveling Genetically-Modified Organisms

By TEMN Reporter Katy Tang

We have been eating genetically-engineered foods since 1996. Some of you may be wondering, "What exactly are genetically engineered foods?" Foods that are genetically engineered contain genetically-modified organisms, or GMOs. Plants, fruits, and vegetables are inserted with insect, fish, animal, and sometimes even human genes.

But, why are people inserting genes into our foods? There are many reasons for why some people are growing genetically engineered crops. Some of these crops are designed to be resistant to specific herbicides, to produce their own insecticides, or to have an increased shelf life. In the case of tomatoes, genetic engineering allows a delay in ripening for easier shipping. Human genes have been inserted into plants to enhance their capability of absorbing pollution from mining sites.

Although inserting genes into our foods may have benefits, these GMO crops create many environmental problems as well. Certain weeds are now "super weeds," which are triple-herbicide resistant and lead to the use of increasingly toxic pesticides. Plants that are genetically altered can spread resistance to antibiotics, leading to diseases that are immune to some antibiotics. Certain allergy-causing proteins can be transferred to foods through genetic engineering, and without labeling, consumers cannot avoid allergic reactions. Although studies have been done about the environment, there have been no long-term studies done on the possible health risks that GMOs may have on our bodies.

Many chefs are aware of the possible health risks posed by foods containing genetically modified ingredients. They feel that they have a responsibility for providing good and healthy food for their customers.

"It's an easy thing to do for my restaurant," says chef David Kinch, from the restaurant Sent Sovi, in Saratoga, California. "I [the restaurant] am very, very small. I have fourteen tables...I purchase my ingredients from local farmers. But if you have a large corporate restaurant [which is] open seven days a week - breakfast, lunch, and dinner - it's really difficult to control where your food is coming from." Kinch also expresses his thoughts about the need for labeling genetically engineered foods. "If people want to eat genetically engineered foods, let them eat it. But people who don't want to eat it, have to know about it." Kinch feels that there is huge concern over labeling foods in the United States.

Diane Rose is a chef at the restaurant Mio Vicino, in Santa Clara, California. Like many other chefs, Rose is very concerned about what she is serving to her customers. This concern prompted her to do research on GMO crops. "Ninety million acres are now GM crops...That's twenty-five percent of American farmland," explains Rose.



Chef Diane Rose

Eric Tucker, a chef at a vegetarian restaurant called Millennium, in San Francisco, California, says there are many ways to avoid genetically modified foods. He says concerned consumers should support organic farming and "grass-roots" agriculture, rather than the large multi-national corporations.

Other ways that concerned consumers can avoid foods containing GMOs include: buying whole foods - meaning fresh fruits and vegetables - as well as using whole grains, beans, seeds, and nuts; supporting local farms and shopping at farmers' markets; buying organic products; avoiding processed foods that contain soy, corn, canola, or cotton; and supporting companies that avoid GMOs.

Independent organizations are setting up campaigns in hopes of eliminating genetically engineered foods from our plates. One such organization, Greenpeace, started a "True Foods" campaign. The "True Foods" campaign encourages concerned consumers to take action against companies that refuse to label their products. Greenpeace wants to spread the word to as many people as possible that major food companies such as Kellogg's, McDonalds, Kraft, and Pillsbury are still using GMO ingredients in their products without labeling them accordingly. In Europe, however, those same companies have told their consumers that they will no longer use GMO ingredients, because of the overwhelming power of consumer activists there.

Further Resources

Greenpeace: www.greenpeaceusa.org/

Waiter, there's a gene in my food: www.abc.net.au/science/slab/consconf/

Do not panic - eat organic: www.rain.org/~sals/my.html

2-minute audio reports:

- GMO's (part I): www.scienceinterchange.org/media/sf_katy_gmopart1.ram

- GMO's (part II): www.scienceinterchange.org/media/sf_katy_gmopart2.ram