Advantages and Disadvantages of Genetically Modified Organisms

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Genetically modified organisms, or GMOs as it is widely known, is a very hot topic these days. Issues such as the advantages and disadvantages of growing GMOs, labeling, and moral issues in the production of such products, are just a few of the discussions going around. This report will deal with the findings I have found in regards to advantages and disadvantages for the farmers who are interested in getting into this field if they haven't already done so. As well, we will look at some of the opinions of others.

Definition and Process

Genetically modified organisms is a process of taking genes from two different species of plants or animals and combining them. You can come up with some interesting combinations, left only to the wild imaginations by the human brain. For example, you can come up with a kiwi fruit with an orange rind, instead of the fuzzy peel, an orange that tastes like a banana, or how about a carrot shaped like a scorpion? Now that's imaginative, as illustrated on the next page:
In the first picture, it shows that you can grow a mini lime fruit with an orange peel encased in a pea shell. The other two pictures are a square apple and tomato. Nice idea for the square fruits if you are interested in stacking them away a lot better. I do recall seeing on television someone growing square watermelons, but that was not a genetically modified organism. It was done differently.

The process of combining the genes is rather a lengthy one. It requires scientists to decode the genetic make up of the species and find exactly what they are looking for. Once they have done that, then they insert that piece of DNA into the other species and monitor it's progress. Over time, a new species has developed. There are advantages and disadvantages about GMOs.

**Advantages of GMOs**

There are five advantages that I have found in creating genetically modified organisms. They are the following:

1. Creation of super foods
2. Foods can be grown in unnatural places
3. Decrease of greenhouse gas
4. Feed the poor
5. Reduction of insecticide used
These are all great advantages. Just think, that by creating foods that can grow in desert like climates or even the most extreme cold, you can provide the food necessary for proper human growth and health. More vitamins essential for the human body can be injected into these super foods. No more worries about insecticides being used on the crops and thus being ingested by humans. Green house gas is a major concern with global warming. By producing more plants, plants can turn that carbon dioxide into oxygen so we could breathe.

Disadvantages of GMOs

Of course, with advantages, there will be disadvantages. Here are the five disadvantages of genetically modified organisms:

1. Unknown allergies
2. Profit motive
3. New diseases
4. Morals and ethics
5. Tastes

These disadvantages I have found make perfect sense. If you are playing around with mother nature, you never know what sort of sickness can be developed, such as allergies, in consuming these foods. Perhaps that particular gene you have taken out or added is something that people have tried to avoid because they were getting sick from eating regular foods.

I also believe that it's okay to make money, but, there are those who will be very greedy about making money, and will do what ever it takes to make as much money as they can. Some farmers may not even have a chance to capitalize on the deal, because major corporations could just bully their way into buying out the seeds and control the market.

Religious beliefs of people also affect whether or not genetically modified organisms is a good thing. Some believe that it is absolutely wrong to mess with mother nature, and that we should be thankful for what was given to us.
Opinions

In researching for some opinions on GMOs, I am finding that a lot of people are against such products being put on shelves. Europe is greatly opposed to this idea. Most, if not all, have either banned the idea of importing such products into the country, or are forcing government regulations to make it mandatory to label the foods as a product of GMO. According to research studies by Clair Marris, there are seven myths in regards to how the public feel about GMOs. They are the following:

1. Public is 'for' or against GMOs. This is not true at all. Rather, people in Europe do know the pros and cons about genetically modified foods and do not discriminate against it. For those who are opposed to it, they would rather see the product labeled as GMO so that consumers can make that choice whether or not to buy it.
2. Public is 'irrational and unscientific'. Those who are against GMO are the ones not educated enough to know about what benefits there are. If the people did not know how it works, they become irrational.
3. People are obsessed with the idea that GMOs are 'unnatural'. People are feeling that those developing GMOs are playing 'God' and do not look at the long-term effect of these organisms. It is true that it is natural for organisms to mutate and combine with other species, the evolution of these creatures are exactly that, natural. It is natures way of serving a purpose for what is to come. Scientists are speeding up the process by doing it themselves, and are not thinking of the consequences of such creations later in life.
4. Agricultural versus medical use of GMOs. There were strong arguments for the medical use of GMOs. In this case, doctors can prescribe medication to individuals who are sick while detailing the pros and cons of using such medication. It is up to the people who are sick whether or not they want this kind of medication. As well, medical GMOs can still be monitored after it has been created by keeping updates with their patients.
5. BSE 'amaigam'. People are feeling that there is going to be more food scandals with GMOs, just as other scandals that have happened with fraud and lack or resources.
6. Demand for 'zero risk'. Europeans are well aware that it is not possible to have zero risks. Lives are full of risks and you need to weigh in the benefits and potential hazards.
7. Selfish about Third World. This is not true to Europeans. In fact, with the number of poor people in Third World countries, they are wondering why, with the amount of food being raised in Europe, is the United States sending over their GMOs to Europe, instead of the people in desperate need? Europeans feel that more public funded research institutions would better serve the Third World.
As you can see, depending on what myth is being talked about, Europeans are concerned greatly about genetically modified organisms. It seems that they are a cautious people who do have great concern about others and for themselves, and like to have all the facts presented to them before they make a decision on whether or not to go ahead with GMO products.

**Conclusion**

I think that fooling around with what mother nature gave us is totally wrong. There are other ways that you can feed the hungry and not have to “super size” the foods. One way is growing foods organically and without the means of pesticides and herbicides. You can have monitored greenhouses for most of the crops. As for larger crops, like wheat and corn, if land can be set aside for just that one purpose instead of developing new infrastructures, we can feed most, if not all, of the hungry. I think that every corner of the world has that potential.

Money seems to be the root of evil these days and if corporations get their hands on GMO seeds, then they can really control who gets to eat at what price. You see it in how corporations in other markets are controlling the prices and what is and isn't being sold to consumers. I suggest that farmers stand up for their right not to grow GMOs if it means the cost of the seed is going to rise, for profit gain.
References

csanad.hubpages.com/hub/GMO-advantages-and-disadvantages

naturalnews.com/033368_farmers_Monsanto.html

ncbi.nlm.nih.gov/pmc/articles/PMC1083956/

planetark.org/dailynewsstory.cfm/newsid/22354/story.htm

ncbi.nlm.nih.gov/pmc/articles/PMC1083956/

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