
Advantages And Opportunities Of Genetic Engineering

What if you can manipulate the genes of an animal or plant? What if you can cut out some parts to achieve something new and extra-ordinary looks? Will you consider those things and make it happen?

Technology plays a big role in remodeling the world. As time goes by lots of things are continuously changing. Through science, things are being discovered. Those discoveries are made for specific uses. Furthermore, through technological advancement combined with genetic engineering, humans have found solutions to address different problems. And by this, it seems that impossible things can become possible.

Genetic engineering is also known as genome editing. It refers to the direct manipulation of the genetic information of an organism. Also, it is a way in which a specific trait or genes for an animal or plant can be extracted and reproduced to form a new animal or plant. By this, a specific trait or characteristic can now be achieved. The product that was created by genetic engineering is called a Genetically Modified Organism (GMO). This product becomes beneficial to humans, the environment, and other living organisms in some ways. Through genetic engineering and biotechnology (harness cellular and bio-molecular processes to develop technologies and products that help improve life), plants and crops can resist insects, herbicide, drought, diseases and it can increase or enhance the nutritional content. And, genetically modified crops play a big role in improving food security in a way it that reduces the food waste.

In agriculture, the most challenging part is to sustain the needs of the growing population. It only means that in order to supply the needs of the people (in terms of food) farmers need to harvest more crops than the usual. Eventually, genetic engineering has an answer to that problem. Through modification or the so-called genetically modified crops, farmers can now plant plants or crops and increase yields and reduced the environmental impact of farming. Likewise, it was claimed that the increase in the crop productivity brought about by genetic engineering can help farmers to relieve problems. Moreover, genetically modified crops can be insect resistant now. By this, farmers secured season-long protection against pests. It also reduces the need for pesticide applications. Consequently, it lowers input costs. Crops that are resistant to herbicides can provide higher yields because the farmer reduce the volume of competing weed species in the field. In addition, it becomes beneficial for the environment due to the insecticide-less process.

Another trait is drought resistance. Genetically modified crops can now grow in places with high temperature. In that way, plants conserve water and it will lessen the job of the farmers. Furthermore, crops that are drought resistant can help farmers to minimize losses associated with extreme temperature. Unlike before, farmers can now be safe from worries that their crops may be infected by different diseases. Having this trait, it enables farmers to harvest high quality crops and those harvested crops can be sold at a much higher price due to its quality. Lastly, genetically modified crops are more nutritious. After it undergoes modification, a normal crop becomes a better one in terms of the nutrition it contains. For instance, the genome of the normal mango was modified and replaced by the genome of banana. Therefore, the mango that

is normally rich in vitamin C had vitamin K now. It implies that when you eat mango it seems like you also eat a banana. And, it's great for those people who lack potassium in their body.

Additionally, Genetic Engineering has so many advantages. One of the advantages is that it can create new plant/crops by subtracting or combining different genome. Now, a great amount of plants/crops can be produced. For example, it helps a tree to produce more fruits than the usual yield. Therefore, the production can now sustain the nonstop consumption of humans and also animals. In addition, through genetic engineering in plants, genetically modified crops help to reduce the effects of bad doings on the environment. Similarly, it helps in preserving natural resources. Having genetic engineering in plants has a big factor in the enhancement of biodiversity. In fact, in BT corn, it doesn't allow insects that are not beneficial to its growth rather it only allows bees, butterflies, and earthworms for it to flourish or grow well. Genetic engineering can make foods better, increase the nutrient value and enables plants to produce aids for deadly health issues. Now, humans can eat a portion of more nutritious food. Knowing that, crops can now resist insects and pests, it has an impact to the humans for they can eat food which is free from chemicals. Chemicals that are present in insecticides and pesticides.

Nowadays, Genetic engineering becomes vital in having a sustainable environment. In this, the productivity of crops increased. To dig deeper, GM crops contribute to the food. Food that is needed by the entire human race. On the other hand, its impact on biodiversity is that it is a 'land-saving' yet, the production is still on its highest. Also, it prevents deforestation. In general, through genetic engineering and genetically modified plants, biodiversity becomes protected.

To sum it up, genetic engineering is the answer to the problems regarding societal problems. Genetically modified crops have been a powerful means in meeting the worldwide demands of humans for quality foods. Besides, genetic engineering has some useful applications, including scientific research, agriculture, and technology. It also implies that genetic engineering improves the resilience, the nutritional value and growth rate of crops. Although genetic engineering has lots of benefits, still, there are things that we need to consider. We should not only focus on the positive side, but we should also work on to make those negative sides positive. Knowing that there are genetically modified crops, humans should not worry about its effect because some crops are modified to be insect resistant and not human resistant. Now, the bottom line is to nourish the growing population without further destroying the environment. Though it is quite challenging, through the help of science, it can be done in extraordinary way.