Aditya Wikara

Alissa Gouw

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Genetic Modified Cow

Originally scientists discovered genetically modified tobaccos, which soon led to vegetables and fruits. Today, genetic engineering isn’t only found in the vegetable kingdom, but also the animal. The genetically modified cow, one of GMO science’s latest development is a good example.

Approximately 2% to 3% of infants are allergic to cow’s milk in their first years of life. Although most babies would eventually surpass this allergy, it poses a major global issue for those who aren’t breast-fed since most formulas consists of cow milk. A solution for this would be the genetically modified cow. According to Amanda Gardner of CNN Health, these cows, conceived through modification and cloning, produces a milk that contains no detectable levels of beta-lacto globulin (BLG), a protein that is believed to trigger allergic reactions. Thus the genetically modified cow produces milk less likely to cause allergic reactions.

The process for this genetic engineering begins with the injection of human genes into a number of unfertilized cow eggs, which allows the milk to contain same nutrients and fat contents as breast milk. (David Derbyshire, "Scientists Develop Genetically Modified Cows That Produce 'human' Breast Milk”) After fertilization, the researchers will implant the embryos into the uteruses of matured cows and wait until the calves are born.

This discovery is surely a breakthrough in GMO science. There are various benefits regarding the genetic modified cow, mainly concerning the global issue it solves which is providing milk for allergic infants. Milk is very crucial especially for infants as it helps their bones grow strong and provides a good source of calcium. Drinking milk is vital for a healthy growth. However as stated, a number of infants and even adults are born allergic to milk. Thus the milk produced by the genetically modified cow will allow them to drink any kind of milk, not only the soy milk which they probably have been drinking their whole lives. This clearly proves how effective the discovery is in solving the global issue which was stated above. In addition to that Amanda Gardner of CNN Health mentions, “What's more, the hypoallergenic milk from this calf appears to be even more nutritious than regular cow's milk, as it contains double the amount of the healthy milk proteins known as caseins”. Therefore the milk will improve the human growth by strengthening the bones and supplying both calcium and protein.

The genetic modified cow discovery certainly affects many world factors such as ethics, the economy, and society. Ethics is basically referring to human’s perception on what is right and what is wrong. The discovery involves ethics because there are people who would consider drinking the hypoallergenic milk as the right thing to do, and others would say it is the wrong. These people are mostly mothers because mothers provide breast milk which is the most suitable milk for their babies. Some mothers would consider the hypoallergenic milk a good thing because they might have consuming jobs which keeps them busy at most times. Thus the milk would be very helpful for them. However, there are also mothers who would consider the milk as a bad thing because it is artificially made to be non-allergic. These mothers would then feel guilty that they aren’t providing their children with the best milk.

As for economy, the discovery surely influences the economy because scientists have basically found the solution for humans that are allergic to milk. This could impact the economy in two ways. First of all, the selling of soy milk could drop significantly as those who are allergic to cow milk can actually drink it now. This could result to people losing their jobs and companies losing money. On the bright side, the selling of cow milk would be the one increasing significantly because everyday could now drink it. Major corporations would want to use this milk for their products and their income would surely increase. Therefore, the discovery of genetic modified cows would certainly impact the economy.

Lastly, genetic modified cows would also affect the society because it has been stated, it can allow allergic infants and adults to drink cow milk. Those who are allergic no longer need to drink soy milk, especially if they don’t find the taste appealing. They can just drink cow milk. In addition to that, they would be able to eat food like ice cream which has a main ingredient of milk. People would surely be more pleased with the hypoallergenic milk produced by the cows, they would be able to consume anything with dairy in it. There will never be any excuses regarding cow milk. The discovery basically improves society’s welfare.

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