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GMO IS THE MAIN REASON PRODUCTS APPEAR. DAIRY PRODUCTS WITH GMO. WHAT IS GMO ITSELF? IS IT HARMFUL OR USEFUL?

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A B S T R A C T

How GMO occurs in dairy products: Maquaculture provides advice on what gene-modified organisms are, why they are created, how they are created, their advantages, their harms, and how to avoid damage from gene-modified organisms.

K E Y W O R D S

GMO, DNA, gene, human, plant varieties, animal breeds, components, diseases, advantages, disadvantages, dairy products.

Introduction

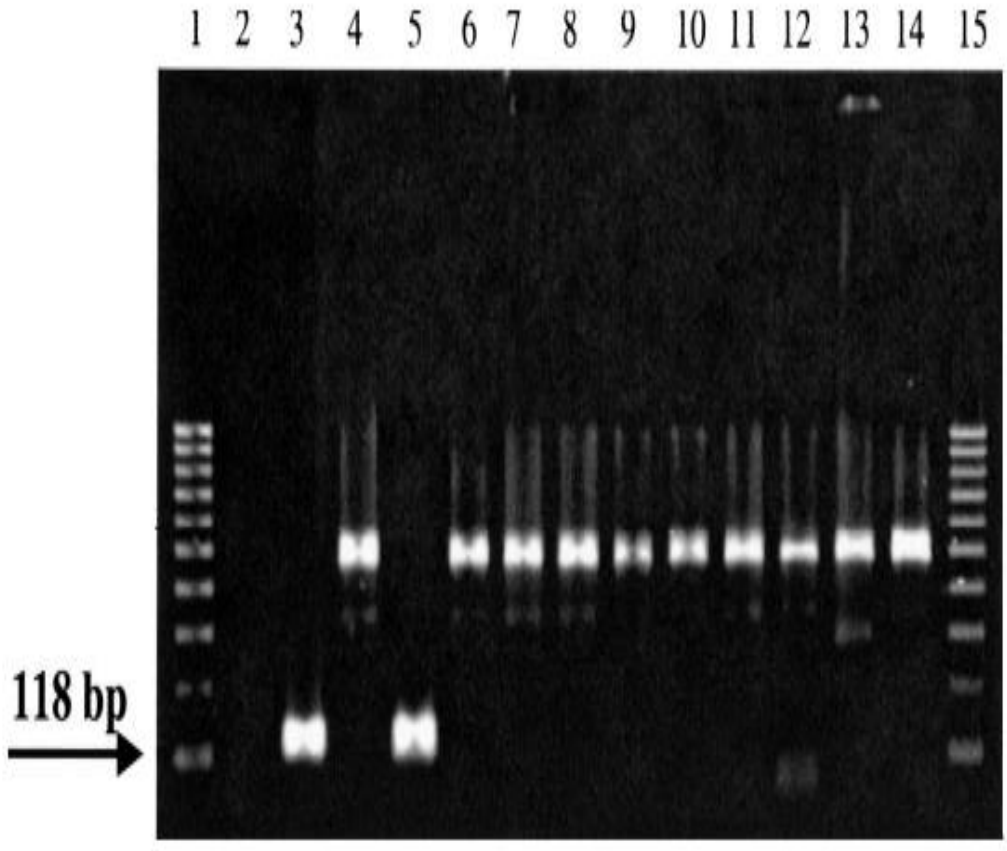
Key factors for the origin of GMO products

The countrymeters project estimates that on August 15, the world population grew by more than 8 billion. It is estimated that it took more than 200,000 years for the population living on the planet to reach 1 billion people. "It took only 200 years for this figure to reach 7 billion," says the project website. I think that as the population grows, the issue that is so important to provide them with food, clothing, medicine, and accommodation will continue to become one of the main tasks of every government policy. According to research conducted by the London-based Institution of Mechanical Engineers (IME), 4 billion tons of food products a year are produced on Earth. Most of them are obtained from different agricultural crops. Experts calculated that almost 30-50 percent of the crop produced in agriculture today, or 1.3 billion tons, is dying for various reasons. In particular, According to analysts at the United Nations Food and Agriculture Organization (FAO),about 5 percent of the grain crops grown on Earth die from various pests, compared with 25-50 percent in Egypt, 5-14 percent in Poland, Bulgaria, Germany, and 15 million tons in IndiaOnna reaches 3.5-4.5 million tons in Ukraine. On the other hand, drought, wild plants and other factors can also be cited. By adding their effects, the amount of crops lost is further increased. In the Russian Federation alone,about 20% of the crop will disappear under the influence of foliage plants. Taking into account the above factors, problems arise when it comes to providing food for the population. These indicators indicate that a

large number of products are being wasted. At the same time, every seventh person on Earth is starving, according to the FAO. Even in Uzbekistan, about 2 million people (5.8% of the population) suffer from malnutrition. The reasons and factors we have considered are putting before experts the requirement to provide food for the population, to provide the necessary plant varieties (currently 80 percent of the food consumed by the inhabitants of the earth is extracted from 12 types of plants) and to perfect the biotechnology of creating and cultivating animal breeds. Therefore, GMO began to try to produce products. In solving this problem, many biologists, ecologists, selectors and geneticists modify their genes in cases where it is not possible to create plant varieties and animal breeds that are resistant to various weeds, pests, chemicals, droughts, cold, hot and other restrictive factors, and create them by natural selectionthey point to job creation as a solution to this problem. Natural selection means that plant varieties and animal breeds derived from natural chatter are said to be obtained. For example,grain varieties such as "Tashkent 1" and "Tashkent 2" that are resistant to wilt disease were obtained by Uzbek scientists by singing ordinary grain varieties with wild gastrointestinal tract infections. Or such breeds as the unscrupulous, drought-resistant varieties of wheat, the leader of slippery Kazakhstan,cattle breeds such as Shwitz, Santa Gertruda, the Russian white chicken that lays a lot of eggs, and Zagorsk are also obtained by mutually companions. To put it this way, the variety of organisms' chromosomes does not allow you to chat between species. For example, inter-species chatter was first obtained by G.D. Karpechenko in the early 20th century by singing cabbage with radish. It was neither a radish nor a potato-like plant,but it was also infertile. Fundamental laws of genetics do not allow cross-species chatter. Currently, the development of science allows you to solve such problems, to interact with one another long species that cannot interact with one another, and to replace their genes.

Where does GMO manifest itself in dairy products?

Genetically modified crops are often used as a feed for animals. Products derived from animals are included in the high-risk list of agan projects in which milk, butter and cheese becomeGMO, because GMO is common in animal feed. Today, companies profit from genetically modified microorganisms such as yeast and algae for "precisely fermented" productionof dairy products. These non-animal milk proteins are used to make ice cream, liquid milk, spread cheese, protein powder, etc.Determining the use of genetically modified feed in milk has become importantbecause the voluntary determination of milk and dairy products as "GMO-free" or "grown organically" prohibits the use of genetically modified organisms (GMO). The purpose of this work was to determine whether DNA transfers from food-stock lots, such as soy and corn, can be determined analytically after the digestion in cow's milk and the transportation of milk cows through the bloodstream, and therefore the milk can report for the use of transgenicfeeds. The blood, milk, urine and feces of dairy cows were examined and alien DNA was detected through polymerase chain reaction by specially boosting the 226 bp fragment of the maize invertase gene and 118 bp of the soy lectin gene. Intravenous dna transfusions of the purified plant indicated that the marker in the blood would quickly destroy the DNA or fall below its detection limit. With experience in nutrition, it was possible to show that the passage of dna from feed to milk could not be determined. Therefore, foreign DNA in the milk content cannot serve as an indicator for the use of transgenic feed, unless the milk is directly contaminated with the components of the feed or the particles of the feed in the air.



GMO itselfand how is it formed?

GMO is a gene modified (modified) organism that ismodified by introducing an alien organism gene into the body using a genetic method of genetic engineering of any characteristic of bacteria, plant or animal organisms (dehydration resistance, resistance to pests, and hakazos). Such processes actually occur even in a natural state in nature, a condition called transformation or horizontal migration of genes. In GMO, however, this process is created to achieve the goal of a person's roof. To illustrate: Imagine that a man who is walking on a road suddenly finds that it becomes two diverging paths. In laboratory conditions, streptomycin-resistant bacteria were broken down in the probe and its DNA was separated. The resulting pure DNA was transferred and observed to the intoxication bacteria. Observations revealed that under the influence of DNA, bacteria that resist streptomycinbecame resistant to antibiotics. To illustrate: Imagine that a man who is walking on a finds that it becomes two diverging paths. The resulting rise in sea levels from the meltwater could cause the disaster for more than the staff to seek.

Advantages of GPO

At the moment, there are a huge range of transgenic plant and animal species that have been formed. Due to their resistance to pests, droughts, various negative natural and anthropogenic factors, theamount of food consumed year after year has decreased. In the trial, 147 metaanalysis studies conducted in 2014 found that the loss of GMO yields among agricultural crops around the world due to pestswas 21.6 percent lower than that of ordinary plants, thereby costing pesticides 36.9 percent less. Total output was 39,2% smaller, and input was higher by 68.2%. Another of the most important

features of GMO products is that they areeasy, affordable, and convenient to grow. At the same time, it is possible to find GMO plant products at any time of the year compared to other plants. They are also distinguished by the absence of special requirements for their maintenance. When it comes to GMO, itwould be a mistake for us to understand only edible products, which are not used only for food. They are also used in scientific research, medicine, the pharmaceutical industry, agriculture, environmental cleaning. In scientific research, GMO iswidely used to determine how many diseases occur from organisms. For example, how diseases such as cancer occur were determined by studying in such organisms. According to official statistics in the current payitis, 415 million people on Earth are diagnosed with diabetes, which is said to reach 642 million by 2040. Many of these patients are forced to take insulin a day, otherwise their condition will quickly deteriorate. Initially, this hormone was prepared by separating bulls and pigs from the underlying gland, but this method cannot be used on an industrial scale. Currently, the gene of the hormone insulin is inserted into a special bacteria genome, producing GMO bacteria. As a result of their activity, they form an insulin. These bacteria serve to preserve the health of the population of 415 million by a margin. The drug used to treat thrombosis caused by blood clots in the blood vessels was also based on protein containing GMO goat milk. 33 types of transgenic plants (GMO) are widely used as food by people: potatoes, papaya, tomatoes, apples, corn, soybeans, beans, poultry, gurExamples of three, tomatoes, sweet peppers, wheat, sugar beets, raps, and so on. Several meta-analyses, which included thousands of studies and several decades of observations, found that GMOs were not harmful. This scientific consensus, established at least since 2012, is that many international scientific organizations, In 2016, 131 Nobel laureates, including medicine, physiology, biology, chemistry, went to the United Nations and Greenpis (International Independent Illegal Ecology Organization) to GMO they signed a letter to stop the fight againstit. Scientists have tested during their experiments that GMO products are also desperately needed by mankind.

The Disadvantages of GMO

GMO-grain did not allow anything to grow on the planted land other than its own because it was so strong. The reason is that cotton or soybean varieties that are resistant to gerbitsids are not enriched with them. Glyphosphate actually breaks down quickly in them even before the maturation of plants, does not remain in the soil. GMO plants can use glyphosphate in large quantities. GMO increases the risk of glyphosphate accumulation in plants. This gerbitsid is also known to cause bone growth and obesity. It is estimated that there are slightly more people in Latin America and the United States who are overweight. Most GMO seeds are intended for planting only a rtimes. That is, what grows out of them will not give offspring. Maybe they want to sell more GMO plants. It is said that artificial gene mutations (e.g. in soybeans or potatoes) can increase allergenic properties of products, often GMO is a powerful allergens. Due to their characteristics, they can reduce other varieties of their own species. If conventional wheat and GMO wheat are planted on two adjacent plots, there is a risk that the modified will be a simple substituteand pollinate it. However, almost no one will allow them to grow side by side. By abandoning its seed funds and using only GMO seeds, especially one-time seeds, the state eventually becomesa food addicted to firms that are eg a to seed fund. In Russia, GMO production is currently prohibited. At the same time, it is allowed to import food containing components that are genetically modified. Soybeans, corn, potatoes and beets, mainly modified to Russia, are imported from the United States. America is a leader in both GMO production and

consumption. So, in the USA, up to 80% of food contains GMO. According to the National Genetic Safety Association, approximately 30-40% of food products in the Russian food market contain GMO. For the past 3 years, the association has identified GMOs in products from Nestle, Mikoyan, Campomos and other companies. The negative impact of GMO on the biological and physiological characteristics of water-cleaners was recently confirmed. Results of a study conducted in collaboration with the Institute of Ecology and Evolution named after OAGB. A.N. Severtsov RAS shows significant negative effects of GMO contained feed on the reproductive functions and health of laboratory animals during 2008-2010. The second generation, - said Alexei Surov, deputy director of the Institute of Economics and Economics at the Russian Academy of Sciences, D.C., - A significant decline in men's reproductive abilities was also noted. "The results of our study confirmed data from European scientists who said that the use of GMOs in laboratory animal food has a negative impact on health," says OAGB President Alexander Baranov, "we used soybeans to feed agricultural breeds in Russia. At a press conference, OAGB experts announced the need fora new set of experiments to further examine the GMO's human health harms. The OAGB has proposed introducing a temporary moratorium on 17 allowed GMO lines in Russia until it is fully tested for biosecurity . In Russia, 17 species of five types of cultural plants are allowed to be used: these are soybeans, corn, potatoes, rice and sugar beets. For example, more than 90% of all soybeans produced in the world have beenchanged in a steep way. Genetically modified soybeans and their additives are used in the manufacture of nutrient products in a wide range of humans and animals. The experimental studywas conducted in lab populations of Campbell Hamsters NG (Rhodopus carbelli), which was chosen because they had rapid generational exchange, which makes it possible to track long-term effects. According to the speakers, if the negative impact of GMO on the human reproductive cobwebyat is confirmed, there is a risk of a serious deterioration in the demographic situation in Russia. One of the disappointing cases that occurs from GMO products, especially with transgenic soybeans, is that allergies in these people, especially young children, are sick. Scientists have transplanted the gene of a Brazilian nut to its gene to make the shadows more resistant and productive. The resulting embryo was given to nuts and then inserted into her wowoe, where it implanted. If a person has previously had an allergy to Brazilian nuts, this happens even when other products added to soybeans or soybeans are now consumed. Therefore, the use of GMO supplements in food is compulsory by almost all countries . But some of the entrepreneurs in the accompanying post are trying to mask what they added GMO without writing information about their use of GMO supplements or using barcodes.

CONCLUSION

To summarize about GMO, I wouldn't even be able to assure you that GMO products are useful at all harmless, nor can I say that they are harmful. During my observations, I read books, got acquainted with the topic, all of them have a homogeneous topic, one says that GMO products are harmful, another that GMO products ease human weight, that they need water and air (transgenic organisms are thousands of o of the world to ease the burden of mankind(Matthew 24:14; 28:19, 20) Jehovah's Witnesses would be pleased to discuss these answers with you. To illustrate: Imagine that a man who is walking on achanded paths. Even if it is a thousand 100% tas products. For example: British Jacqueline Hensensen died of brain swelling by drinking 4 liters of water in 2 hours. This woman, who came from work watching TV, drank 4 liters of water standing in a container next to her without her knowledgeand began to feel bad within 2 hours. The head hurts and returns. Fainting away in a short time. Due to the increased amount of water in the body, it dies with the above diagnosis. Another

example is that the harm of apple seedscan be caused by their excessive consumption in addition to h ad. The number of sows consumed per day should not exceed 10 units, and some experts believe that it should be up to 7 pcs. Exceeding this thresholdcan lead to tanning poisoning with sanic acid. Subsequently, dizziness, vomiting, some organs may deteriorate or malfunction. So, my dear ones, my good advice is that not everyone who thinks about their health eats more than normal. Whether we like it or not, there is a lot of GMO in products. This is the case because of the growing number of people day by day and the lack of food. Therefore, before we consumeit, let's take a look at the abandonment of the product and normally consume these products so that no risk can approach us. If it contains a product that gives us an allergic reaction, we should not eat it, if we think about our own health. For example : Scientists transplanted the brazilian nut gene into its gene to make the shadows more resistant and productive. The resulting embryo was given to nuts and then inserted into her wowoe, where it implanted. If a person has previously had an allergy to Brazilian nuts, this happens even when other products added to soybeans or soybeans are now consumed. Therefore, soybean-added products should not be consumed by people with allergies to Brazilian firewood. The question arises, how do we know from what product the gene included in the gene modified product added to the product t archetype was derived from? We can't know this from the label with the contents of the product written in the current payit. We have to search the Internet ourselves. In my opinion, the state should take control of the companies that manufacture me and make it mandatory for GMO products to write down which product was transplanted. Then people with allergies would not havesuffered by eating these crops, not knowing. In Europe, products can be used by adding up to 0.9%, Japan 9%, and the United States up to 10% of allowed amounts of GMO products. We may see that some countries do not have enough technical equipment andthat a GMO product has not developed a system for monitoring excessive use, that there is no comprehensive legislative framework for scientific research in the biological sphere, and that there is no government support. Therefore, various harmful effects of GMO products are occurring. The harmful consequences of over-normal used items will definitely be. The World Health Organization (WHO) notes that genetically modified food products 'do not pose a threat to human health'. People have a question, do GMO products not make us affect our gene? Every plant and animal we consume contains GMO, which usually contains DNA, which a person usually consumes between 0.1-1 g of DNA based on the plant and animal products he or she consumes when eating. 95% of them break down to separate nucleotides until they go to the intestines in the digestive tract. The remaining 5% of DNA consists of an averageof 1,00-400 nucleotides, reaching the intestine. The same probability was tested by scientists in experiments in chicks and calves. As a result, the DNA fragments contained in the food were unable to pass through the intestinal wall into the blood vessels. From this we can see that GMO products do not have any effect on our gene.

References

1. Biology. Basics of sitalogy and genetics. A.Zikiryayev, A.Toxtayev, I.Azimov, N.Sonin.
2. Biology.A.Gofurov, A.Abdukarimov, J.Tolipova, O.Ishankulov,M. Umaraliyeva, I.Abduraxmonova
3. https://www.nongmoproject.org
4.https://uz.m.wikipedia.org
5.Valenteshop.ru
6.Https://xabardor.uz