

Bioethics and consumption of genetically modified crops

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Abstract

Technological evolution opens an unlimited number of possibilities, but at the same time generates multiple doubts; In the case of transgenic seeds, the debate not only takes place in the technological field, also involves the social, cultural, political, economic and philosophical fields. Since then the advances of modern biotechnology and genetically modified foods have had a great growth and adoption at a global level and considered of great value to society. However, there are controversies and public concern about transgenic foods and crops, which focus on food security and environmental conservation, whether the consumer has the right or not to choose, if they are needed to face hunger in the world now or in the future, on intellectual property rights and ethics.

In the almost 20 years since they were commercialized for the first time, the technologies of transgenic crops have experienced a dramatic breakthrough and it is undoubtedly one of the most controversial technologies that appear in the market in recent decades. A systematic review of the scientific literature on pros and cons in relation to the use of GMO for planting and human consumption was made, and an analysis of the findings from the bioethical perspectives, which allowed us to make a synthesis with which we established what is most appropriate regarding this subject in the light of bioethical principles.

In summary, we can say that 70% of the articles reviewed, see the need to regulate the use and application of GMOs and 44% of the articles support a regulation of biosafety. In other words, most countries, seek to follow the same rules of control and prevention for the consumption of foods derived from genetically modified organisms in order to avoid any risk to human health or environment. Our main recommendation is to continue scientifically founded research on genetically modified foods and to evaluate them through an International Committee periodically, in order to detect early negative effects on ecology, economy and human and animal health.

animals lack the potential to synthesize maximum of the vitamins, microorganism have inherent ability to provide those metabolites. With contemporary lifestyle, consumers are becoming more fitness conscious and discerned in their food choices. In this kind of situation, riboflavin-offering LAB offer a clean gain over chemical synthesis through growing the nutritional price of food.

The riboflavin biosynthesis in bacteria turned into analysed the usage of comparative analysis of genes, operons and regulatory elements. Chemical synthesis of a diet is being replaced by fermentation processes due to financial and environmental considerations of the latter. Besides the monetary advantages, additional blessings of the microbial synthesis include the use of renewable sources, environmental-friendly approach and superior nice of the final. version for law of riboflavin biosynthesis is primarily based at the formation of opportunity RNA structure regarding the RFN element (a mononucleotide riboswitch is surprisingly conserved RNA element this is discovered frequently inside the 5' untranslated location of prokaryotic mRNA that encodes for FMN biosynthesis and shipping proteins that is utilized in a later step (lumazine synthase). The 2d and 1/3 enzymatic steps (deamination of the pyrimidine ring of structure and the subsequent discount of the ribosyl side-chain) are controlled by way of some other bi-practical enzyme encoded by means of the first gene of the operon ribG The penultimate step in riboflavin biosynthesis, is catalysed by means of lumazine synthase, the fabricated from the closing rib gene, ribHSo far, records available on entire genomes of numerous microbes has made it clean that riboflavin-producing ability is identified to be strain or subspecies specific

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