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Diverse Impacts of Genetically Engineered Food

The issue of genetically modified crops is not new; it has been in the spotlight for over a decade and still shows no signs of consensus about such foods' impact on global food security, individual health, and population's well-being. The mounting evidence of genetically modified organisms' (GMO) health risks suggests that GMO practices should be curbed for the sake of preventing unforeseen health consequences for consumers (Kreipe 30). Biotechnologists, in their turn, advocate increasing GMO research and experimentation for the sake of making crops more tolerant to infections and insects, to unfavorable weather conditions, and may generally contribute to better human nutrition (Carter and Sheldon 10-12).

The public health stance regarding GMOs is mostly negative. In the light of numerous clinical research trials revealing detrimental impacts of GMOs on human health, their consumption is largely opposed and proper labeling for products containing GMOs is demanded by the governments. Watson and Keeler (42), for instance, observed that dairy products from cows treated with bovine growth hormone contained unsafe constituents, while characteristics of transgenes and new gene products are substances previously unknown to the human organism, thus capable of triggering unwanted side effects or interactions with human genes. It is vital to keep in mind that genes taken for modification and enhancement of GMOs are traditionally taken from bacteria, viruses, and other non-food species alien and even dangerous for humans, so their interaction with organic genes may yield genetically hazardous components.

Another side of the debate is much more optimistic about the role of GMOs in addressing food security. Obviously, proponents of GMOs' introduction in the food markets claim that opponents mostly reside in high-income countries and have never come across food shortage, which is a looming global danger of the coming decades. GMOs are thus seen by Carter and Sheldon (32) as a solution to food availability problems, especially for regions with unfavorable weather conditions and frequent losses of harvest because of insects, infections, floods, and droughts. With the introduction of herbicide- and insect-tolerant GMOs, these problems have largely reduced in importance, making it much easier for farmers to preserve the major portions of their harvest. Furthermore, GMOs can become a viable solution to the problem of economic access to food, as their production can make food cheaper, while not compromising the nutritional value.

Both claims have a large number of supporters, each offering reasonable arguments and supporting their opinions with scholarly evidence. Therefore, it mostly appears to be the issue of perspective, with individual health concerns juxtaposed to large-scale food security issues. The issue of real impact of GMOs on the human organism, as well as threats and benefits it has to offer to the global community, thus remains largely unresolved, and more insights are needed to clarify advantages and disadvantages of genomic modification of plants and their subsequent consumption by people.

Works Cited

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