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The Impact of Genetic Engineering in Agriculture: A Synthesis of Sources

The controversy surrounding industrial agriculture is a never ending one. On one hand, authors such as Blake Hurst argues through his essay, "The Omnivore's Delusion: Against the Agri-intellectuals," that modern industrial farming methods allow family farms to produce a greater volume of food at a cheaper cost compared to traditional methods. However, on the other hand exists authors such as Vandana Shiva who argues through her short piece, "Soy Imperialism and the Destruction of Local Food Cultures," that application of genetic engineering in farming practices is a display of corporate control over agriculture.

Author Blake Hurst and Vandana Shiva have colliding opinions regarding the use of genetically engineered crops, clearly. Hurst believes biotech crops are beneficial to small family farms because they "actually cut the use of chemicals, and increase the food safety" (Hurst 242). Shiva, on the contrary, believes the incorporation of genetically engineered soybeans in India not only stands to destroy the food culture and economy surrounding the local mustard oil, "the sole purpose of Roundup Ready soybeans is to sell more chemicals for seeds tailored to these chemicals" (Shiva 184). The use of genetically modified seeds is very interesting because within the movie *King Corn* directed by Aaron Wolf, Ian Cheney and Curt Ellis planted genetically modified corn on their one acre of land in order to examine corn's impact on human health and

economy. This shows that modern society is depended on genetic modification because the benefits outweigh the negatives for many of these farmers.

Blake Hurst supports his view regarding the application of biotechnology in agriculture because the combination of herbicides and genetically engineered seeds have allowed farmers to maintain the sustainability of their farms and reduce pollution. However, I find one flaw with Hurst's argument here. While he may be reducing pollution through the use of herbicides and genetically modified crops, he fails to consider the bigger impact that combination could have on the biodiversity of the environment. Shiva does not support the use of genetic engineering in agriculture because the cultivation of these GM seeds is increasingly being monopolized (Shiva 186). This is an alarming sign because it indicates U.S farmers are being exploited within a globalized free-trade system that stands to benefit global corporations. The flaw I find in Shiva's argument is the fact that she fails to identify this is the best possible solution for many farmers. The seeds distributed by Monsanto, for example, helps farmers reduce yield contamination that arises from the growth of weeds in a farmer's land. With GM seeds, farmers are able to kill these weeds since these seeds express herbicide tolerance.

I am a supporter of genetically modified seeds. However, I firmly believe these GM systems should be regulated in order to protect the local food economy and the environment from being attacked. The benefits derived from these seeds are definitely convenient from many farmers, but the negative impacts must also be considered since destroying local economies by changing cultivation practices is not ideal. Similarly, our environment is shared by a diverse number of organisms that must be protected in order to avoid grave future consequences. Also, the government's immense impact to change how a local economy systematically functions through the regulation of genetic engineering is dangerous without considering all aspects of the

policy being enacted. A nation is not just determined by its economy. They must consider the well-being of its citizens, the nation's natural resources and environment, etc. before initiating a policy that could potentially worsen an already strained situation.

Works Cited

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