

It's Corn!

For years, one of the biggest inhibitors of corn agricultural yield was the larvae of the European corn borer. These caterpillars chew through corn plants, causing major damage to them. This problem has been addressed by producing bt-corn, a Genetically Modified Organism (GMO) that makes the corn toxic to the corn borers.¹

GMOs are just one of many ways in which we influence the plant life that we consume for food, however. Through selective breeding, most of the fruits and vegetables we eat have been engineered by us. The benefits of genetic modification of corn and other important crops are numerous. In addition to repelling insects, our genetic modification has produced crops that have increased nutritional value, greater resistance to disease, and even require less water. These benefits can boost quality of life (especially in poorer countries), and allow us to have tastier and more nutritional food in more places.²

The prevalence of crops that have been so heavily modified are not uncontroversial, however. Some express concerns about potential unknown health effects of GMOs and argue that we've adopted them far too quickly and unquestioningly. There are also concerns about the potential loss of biodiversity resulting from such widespread adoption of specific strains of crops.³

As a specific type of crop (like bt-corn) displaces many other strains, it becomes much rarer to see different varieties of that crop. Many of the common fruits and vegetables we eat are monolithic today, but in the past were much more varied. As a consequence, a single disease that specifically affects a strain of some crop could be absolutely devastating. Adoption of GMOs and other genetically engineered crops may thus make us more vulnerable to widespread catastrophic famine. Others have argued that there is something good about genetic diversity on Earth itself, and that we have a duty to preserve it.

DISCUSSION QUESTIONS

1. How should the immediate benefits of GMOs be weighed against future risks posed by a loss of biodiversity?
2. Do humans have a moral obligation to preserve the planet's biodiversity?
3. Who should have the right to make decisions about the adoption of genetically modified crops?

¹ <https://entomology.ca.uky.edu/ef130>

² <https://mbc.studentlife.umich.edu/2021/12/10/the-safety-benefits-and-future-of-genetically-modified-organisms/>

³ <https://www.medicalnewstoday.com/articles/324576>

