GMO Sustainability

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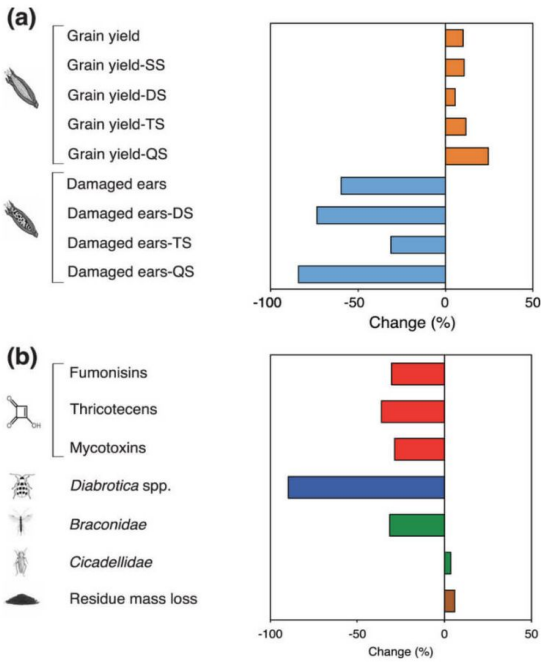


Effects of GMO corn on: grain yield and damaged ears (a), grain quality (toxins), target pest non-target insects, and residue mass loss. (Click image to enlarge)

What is Sustainability?

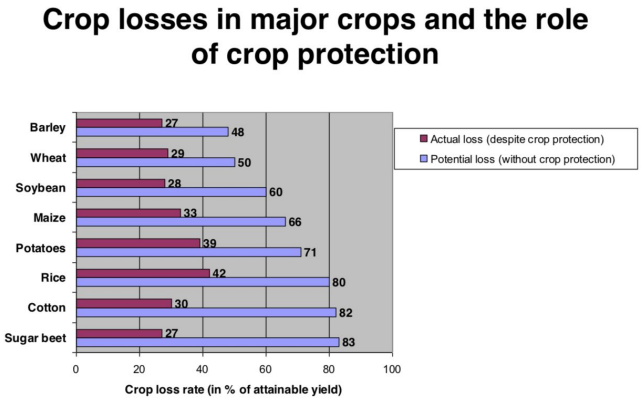
Sustainability is a way of living that allows the current generation to meet its own needs without compromising the needs of future generations.

GMOs

GMOs, or genetically modified organisms, are being used increasingly in agricultural practices. From pest and disease resistance to enhanced levels of vitamins, GMOs can introduce many beneficial traits to crops. Those who argue against GMOs say they are bad for human consumption and it is unethical to alter food, but there is significant evidence against these claims.

Our Claim

GMOs are a beneficial solution to the current problem of sustainability. Their application in agriculture will pave the way to more sustainable farming practices by providing a sufficient and profitable food source. Some benefits of GMO application include:



Oerke and Dehne (2004) Crop Protection 23:275-285

- An increase in crop yield, which allows for the sustaining of a larger population.
- A reduction in the amount of insecticides used, which is better for the environment and human consumption.
- Support for more sustainable farming that preserves water and topsoil and can improve air quality.
- Food webs can be used to determine the species richness in an ecosystem and can tell if specific pests are involved, which helps to show the benefits GMOs have on an ecosystem after their application.
- Ecosystem energetics can be analyzed to determine the differences in the amount of energy in GMO vs. non-GMO crops, which will tell us if there is more biomass being produced, and therefore a higher crop yield.
- Cost can also be taken into consideration when examining the sustainability of GMOs– they cost less to produce and have a high yield, which allows prices to stay low for consumers and profits high for farmers.

CITATIONS

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