

Corn As a GMO, History pros cons and environmental affects

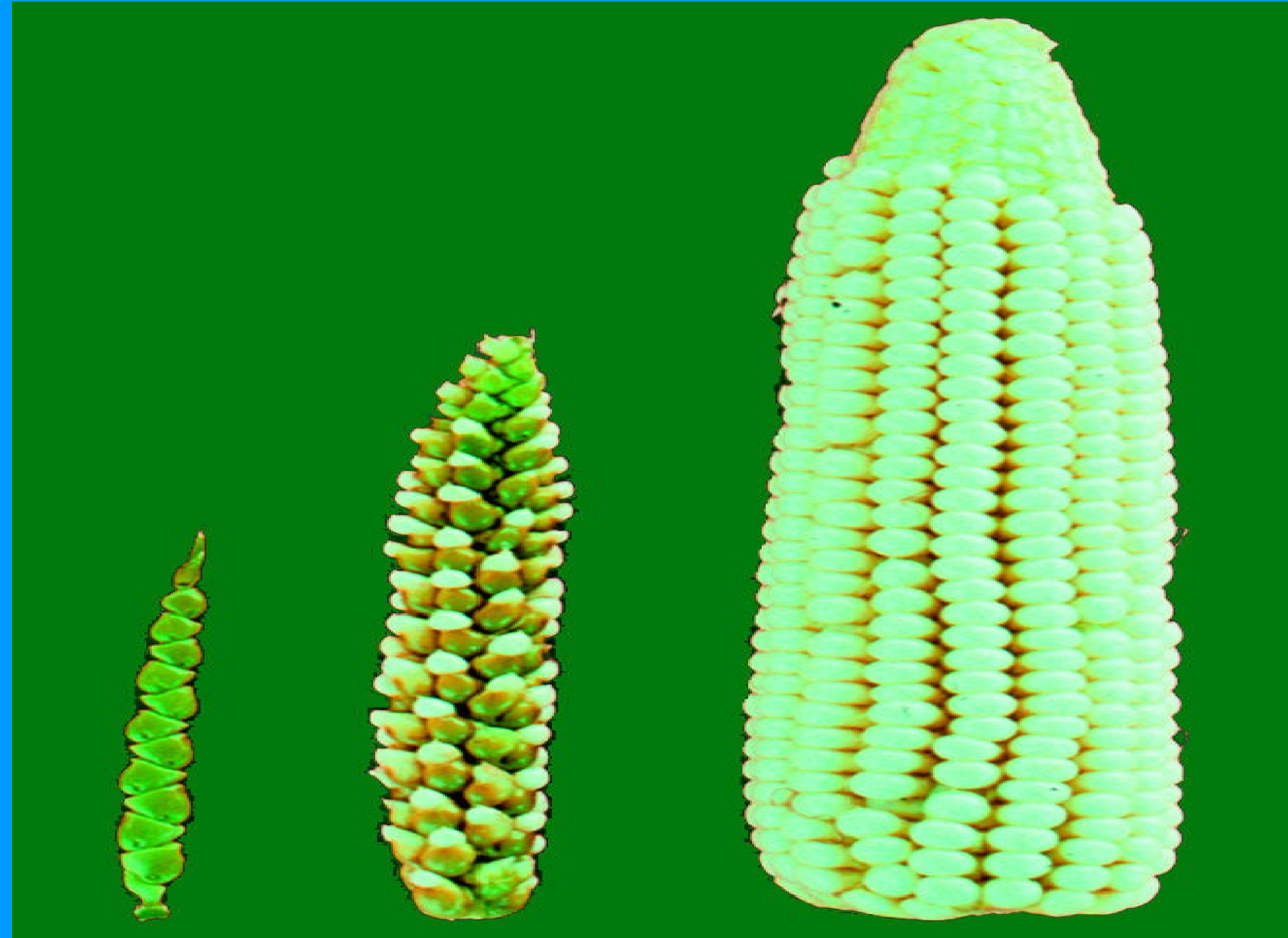
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Bio 208

Gmo: Genetically modify organism, A crop or animal which has been changed by genetic engineering is one of the most common examples of a modern GMO

History

Corn was domesticated over 10,000 years ago in Mexico. It is considered one of mankind's "oldest inventions". Without the selective breeding done years ago, we would not have the corn we know today. As science became more advance so did the modification of corn. It wasn't until *Bacillus thuringiensis* gene was introduced that GMOs became a big Ethical issue. *Bacillus thuringiensis* is a gene that is deadly for some common crop pests. The ethical issues are still a debate to this day. Despite this Farmers still grow GMO corn with the most common being Derived insect resistance and herbicide resistance.



Corn Started as a the far-left plant with few kernels, This was a small grass called teosinte it wasn't until cross breeding we got the hardy many kernel corn we know today, Selective breeding was done to try and fulfill the amount of food the growing Mexican population needed and has evolved over years to keep up with the amount of corn we need as a society

Pros

- 1) Leads to less hunger and lower food prices worldwide
- 2) Can reduce water need and pesticide use
- 3) Can let corn grow in areas where it once wasn't possible

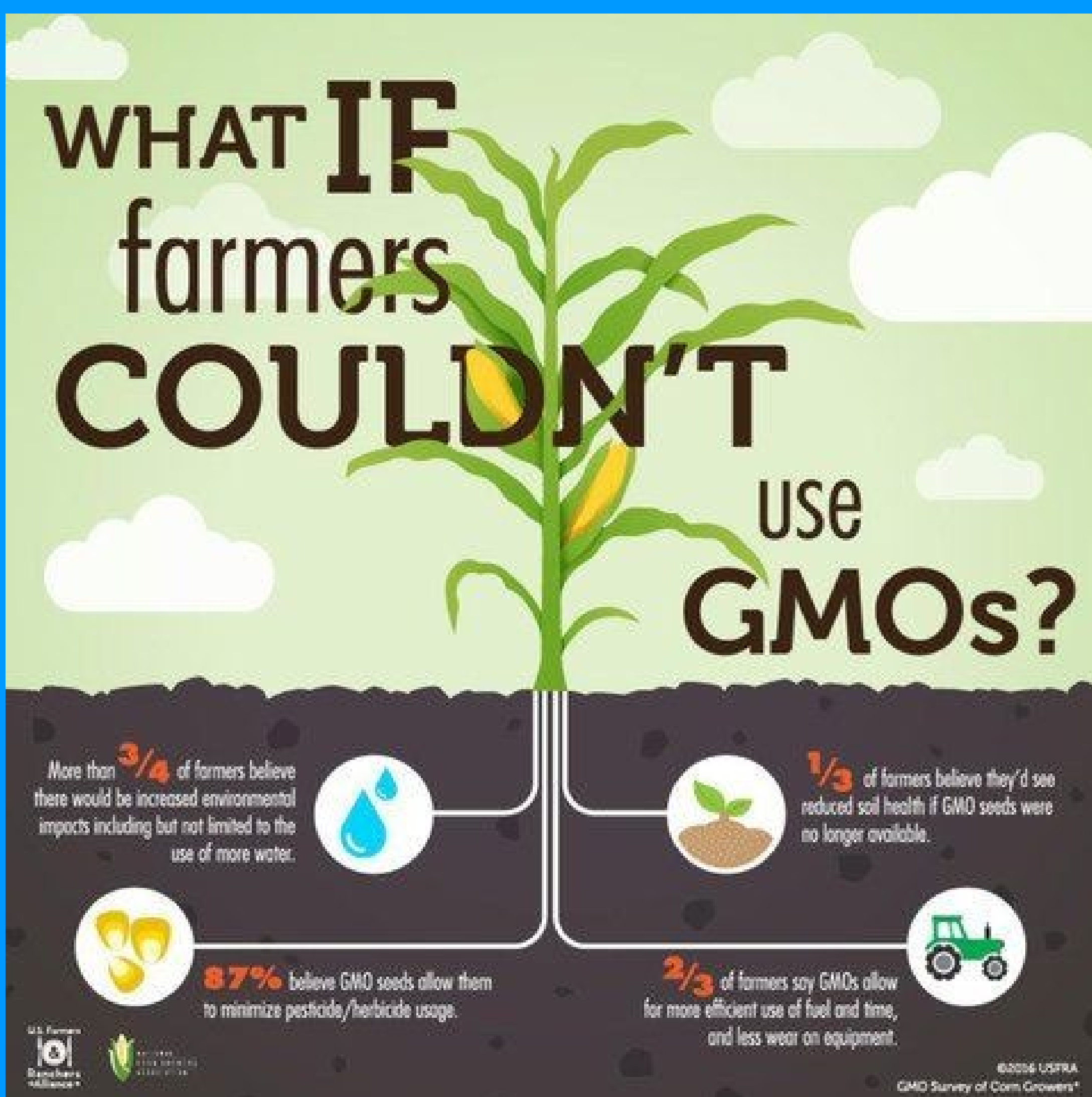
Corn and the Environment

There are a few concerns evolving GMOs and the environment. Such as corn spreading the modified genes to wild crops making them potentially dangerous to wild animals, there are also concerns on GMOs increasing antibacterial reticence in animals we use for meat like cows and chickens, but this risk has yet to be studied a lot and there are still learning new things. Over all GMOs are still a very new tech and there is a lot we have to learn

An impact GMO plants have on their environment is when you consider the renewal of cropland. That being said, with the large production in U.S there is a need to cut down some forest areas for this process. In cutting down that area all of the stored carbon is released into the atmosphere adding to the ozone.

Cons

- 1) There have yet to be any long-term test on human health, while scientist are pretty sure there are no negative affects there haven't been major studies
- 2) In certain areas Corn is know to increase the number of pesticides uses
- 3) We do not know if there are any long-term environmental affects yet
- 4) There is also the idea that without GMO crops food supplies in America would cost roughly .81 percent more



This chart of shows s few of the big pros of GMOs and their benefits to natures including less water and better soil health

Country	GM Acreage in 2002 (million hectares)
United States	39.0
Argentina	13.5
Canada	3.5
China	2.1
South Africa	0.3
Australia	0.1

Four crops account for most GM plantings: herbicide-tolerant soybeans (62%), insect-resistant corn (12.4%), insect-resistant cotton (6.8%), and canola (3%). Source: Summary Report on the Global Status of GM Crops by the International Service for the Acquisition of Agri-Biotech Applications (2002). DOI: 10.1371/journal.pbio.0000008.t001

Citations

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