

What are the Pros and Cons of GM-maize and "Natural" Maize?



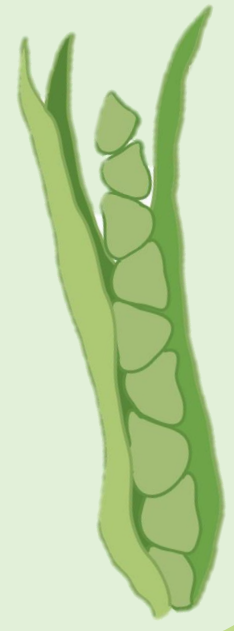
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Facts about maize

Maize is a cereal plant belonging to the genus *Zea* and is one of the most cultivated cereal species in the world. In Norway, a variation of the sweet corn, also known as sugar corn or yellow corn, is usually eaten. The origins of the sweet corn species can be traced back to the Native American cultures of Central America where they have been cultivated for over 5,000 years.

Did you know...

The original maize plants were called teosinte (*Zea mexicana*) and had small, hard kernels and were not as sweet as today's sweet corn.



It was through natural selection and crossing of different maize varieties that the sweet maize was developed.

The use of **genetically modified maize (GM-maize)** in maize production may have some potential impacts on the «natural» cultivation of maize, including the maize we eat today. Until now, commercial cultivation of GM-maize has not been approved or permitted in Norway.

✓ Pros of "natural" maize

- **Familiarity:** We are familiar with natural maize traits and consequences of consuming it.
- **Ecosystem:** We know how natural maize interact with the surrounding wildlife.
- **Superweed debate:** Does "natural" crops hinder development of superweeds?
- **General acceptance:** "Natural" maize is already generally accepted by the population.

✓ Pros of GM-maize

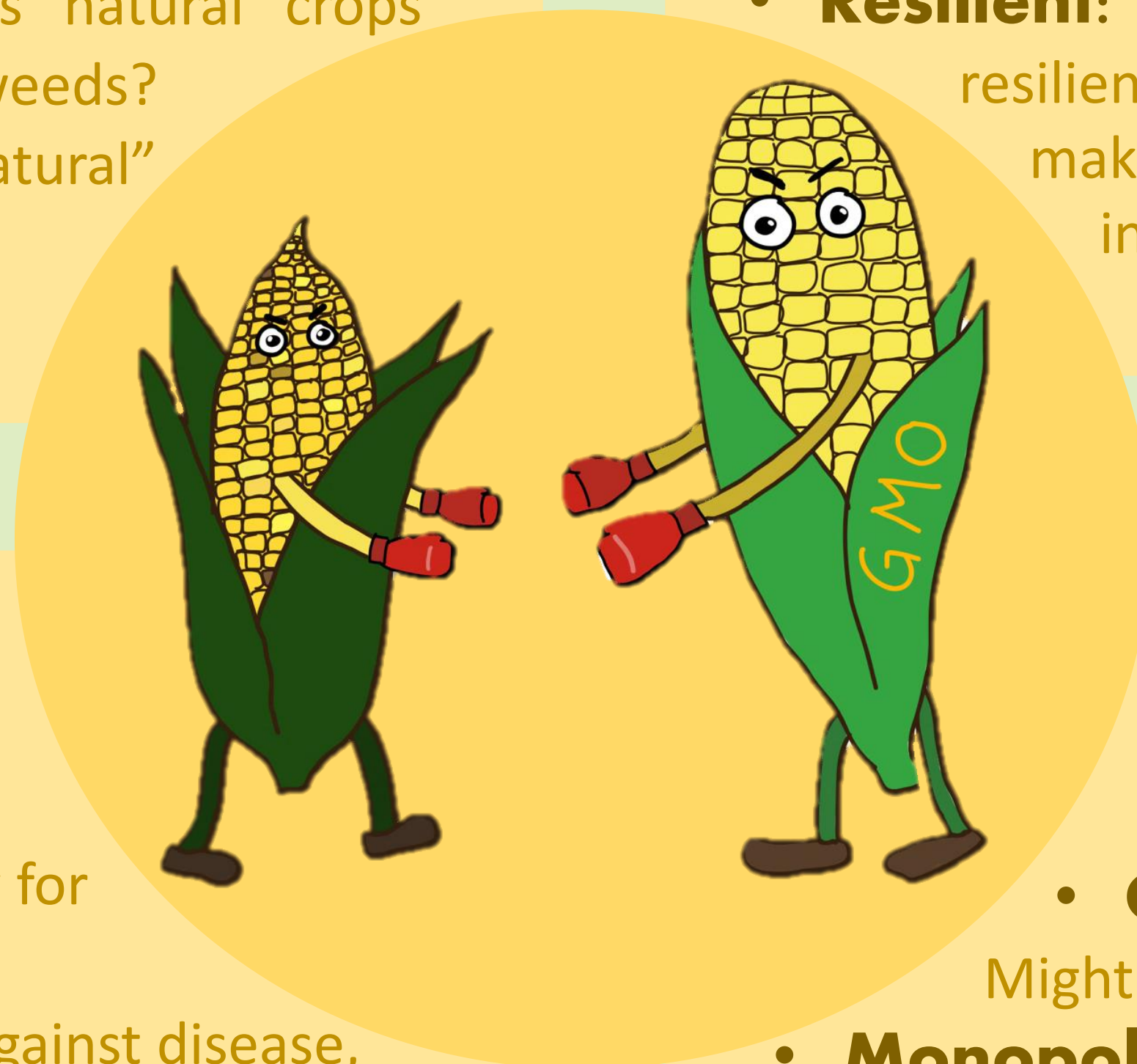
- **Higher yield:** GM-maize modified to resist pests/herbicides has higher yield.
- **Nutritional:** Can be modified to add or improve nutrients beneficial for humans.
- **Resilient:** GM-maize modified for increased resilience to environmental stresses can make maize a feasible option in areas prone to such stresses.

✗ Cons of "natural" maize

- **Monoculture:** Vulnerability for diseases and harsh weather.
- **Resistance:** Less resistant against disease, weather and pesticides.
- **Pesticide:** Can be bad for farmers health, is an extra cost and is unwanted in our food.
- **Limitations:** Has more limiting traits than GM-maize.
- **Trade routes:** Some food products may become unavailable.

✗ Cons of GM-maize

- **Cross-pollination:** GM-maize might cross-pollinate traditional maize
- **Monopoly:** GMO patents and IP rights give corporations exclusive control, potentially leading to concentrated power.
- **Superweed:** Overuse of herbicides on GM maize can lead to the development of herbicide resistant weeds.
- **Controversial:** Wide concern over possible health risk.



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