

WHAT ARE GMO

FOOD: THEIR

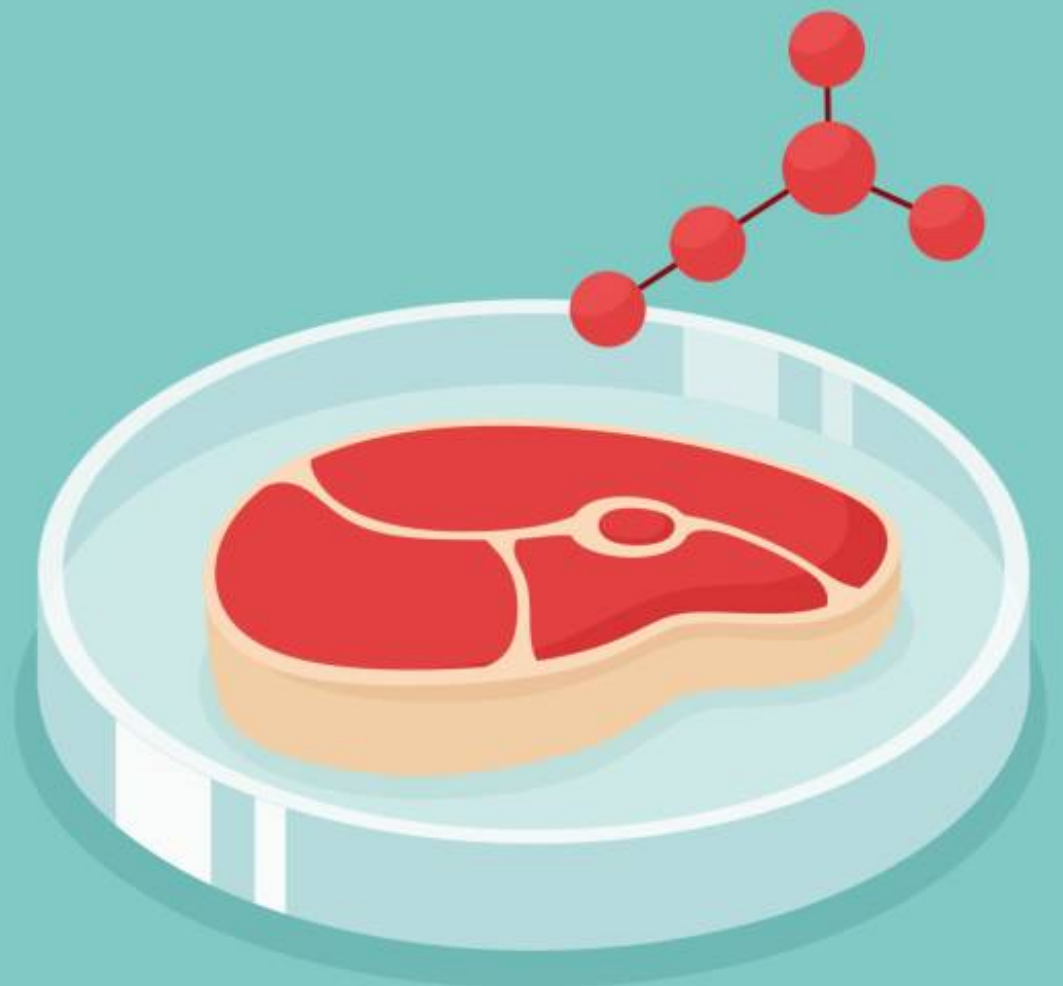
POSITIVE AND NEGATIVE



WHAT ARE GENETICALLY MODIFIED FOODS?

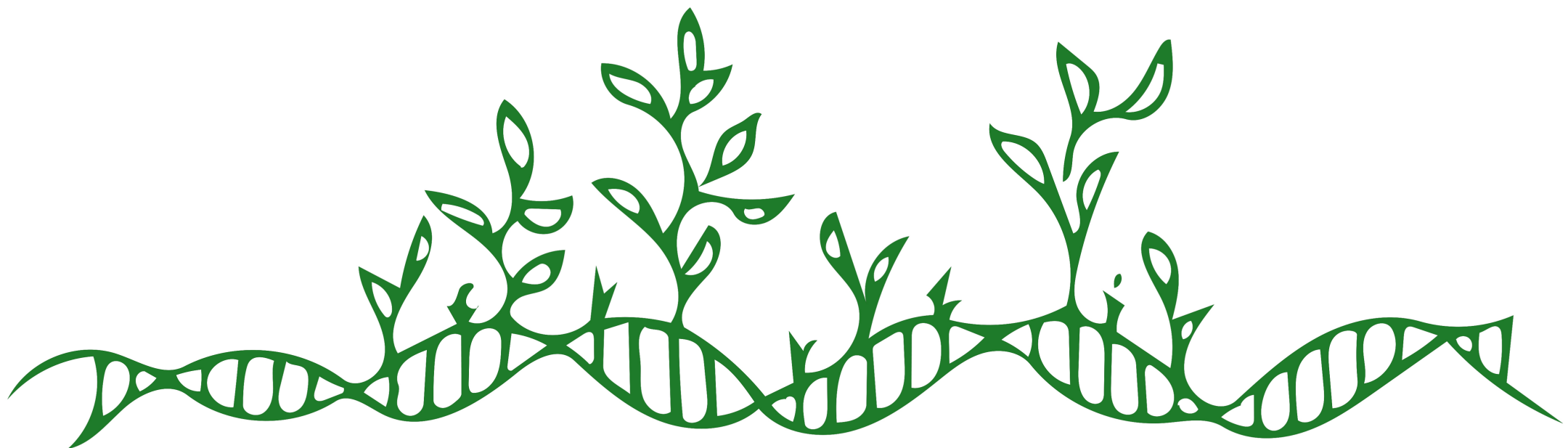
Genetically modified crops (GM crops) are plants used in agriculture, the DNA of which has been modified using genetic engineering methods.

In the future, genetic modification could be aimed at altering the nutrient content of food, reducing its allergenic potential or improving the efficiency of food production systems.



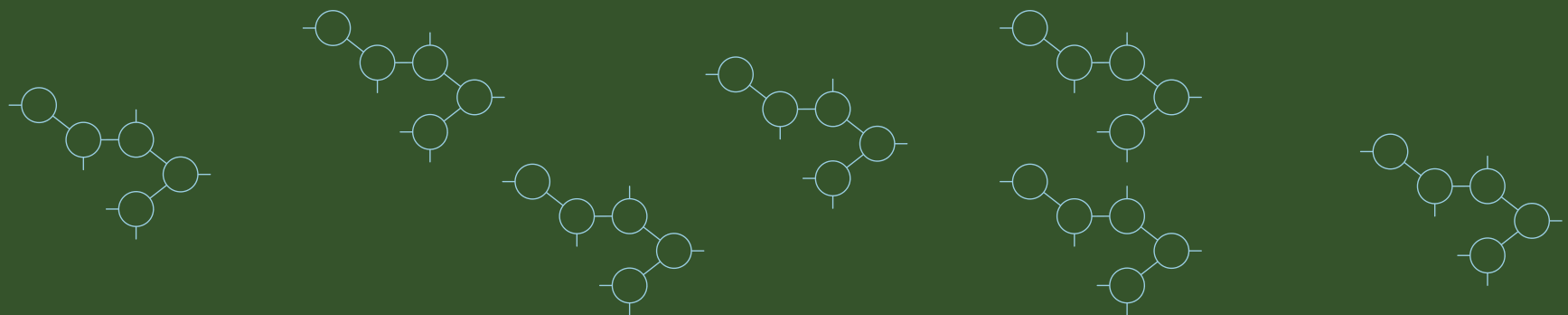
RECOMBINANT DNA TECHNOLOGY?

Combining genes from different organisms is known as recombinant DNA technology, and the resulting organism is said to be "genetically modified," "genetically engineered," or "transgenic" and the technology is often called "modern biotechnology" or "gene technology", sometimes also "recombinant DNA technology" or "genetic engineering".



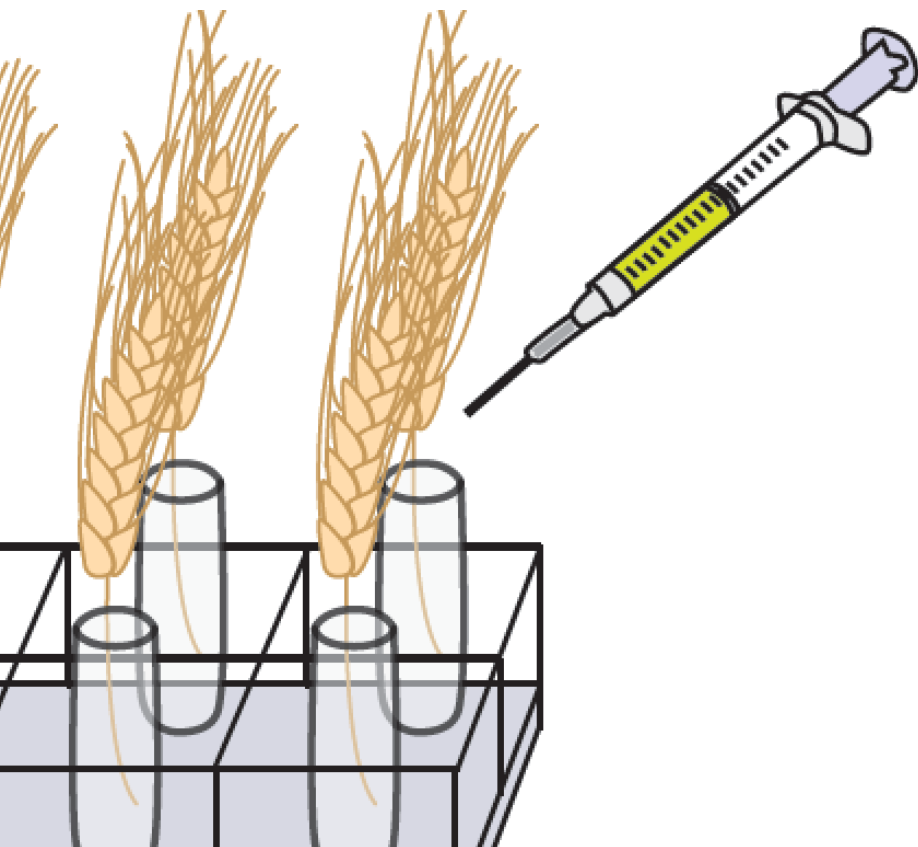
STATISTICS OF GMO CROPS IN INDIA:

- Today some 9.5 million farmers in 21 countries grow GM varieties.
- Between 1996 & 2005, the total surface area of land cultivated with GMO had increased from **4.2 M acres** to **222 million acres**.
- There has also been **rapid** and continuing **expansion** of **GM cotton** varieties in **India** since 2002.



SOME GM ENGINEERING EXPERIMENTS IN INDIA

Cotton, maize, mustard, sugarcane, sorghum, pigeonpea, Chickpea, rice, tomato, brinjal, potato, banana, papaya, cauliflower, oilseeds, castor,



- soyabean and medicinal plants.
- Experiments are also underway on several species of fish.

ADVANTAGES OF GMO FOODS

- Genetically modified crops are Pest resistance & require less fertilizer and are more Herbicide tolerance.
- GM crops are Cold tolerance.
- GM technology has increased crop yields by 21%
- Disease- and drought-resistant plants that require fewer environmental resources (such as water and fertilizer).



DISADVANTAGES OF GMO FOODS

- Disrupt the natural process of gene flow because the “better” traits produced from engineering genes can result in the favouring of one organism.
- Cost of cultivation is increased.
- Harm to human or animal health like toxicological effects, Allergenicity.
- GMC changes the nutritional value and alters the transfer of antibiotic resistance.

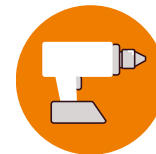


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