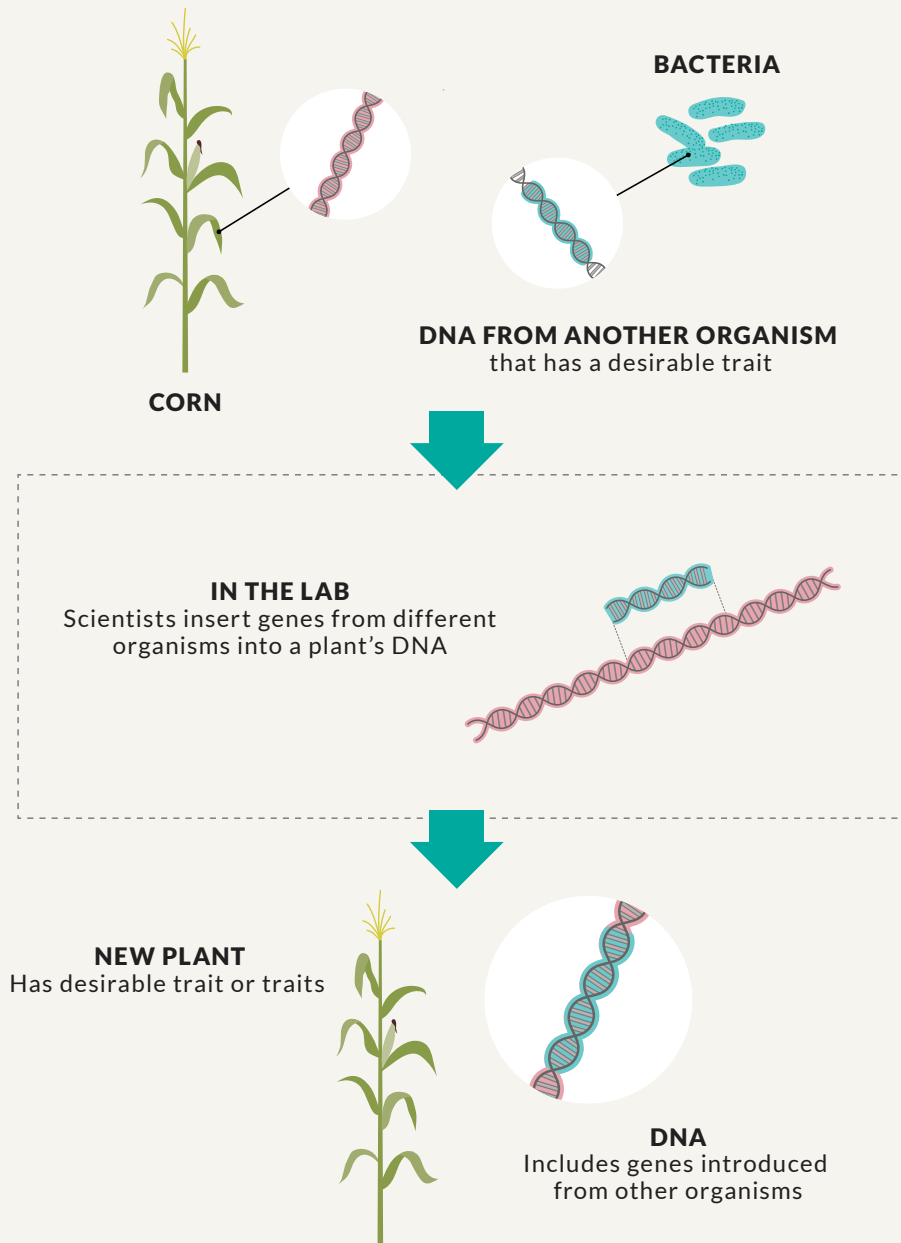


Genetic Engineering



Genetic engineering is a way to speed up and control the plant breeding process by altering or inserting specific genes into a living organism. The DNA does not need to come from a closely related species. Scientists have used genetic engineering to create plants with positive traits such as increased productivity, increased nutritional value, resistance to disease, and resistance to herbicides.

EXAMPLES:

Almost all corn, soybeans, cotton, sugar beets, and canola plants grown in the United States are *genetically modified organisms* (GMOs).



Insect-resistant corn

Includes a gene from soil bacteria that is toxic to some insects



Herbicide-tolerant sugar beets

Genetically modified to tolerate a universal herbicide spray used to kill weeds



Virus-resistant papaya

Includes a gene fragment from the ringspot virus, making it resistant to that disease



More nutritious rice

Golden rice is genetically modified to include beta-carotene, which your body converts to Vitamin A