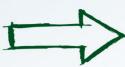
## GM Terminology

G-Genetically M-Modified O-Organism



When the DNA is modified to... **enhance** a characteristic (e.g., pest resistance) or reduce a characteristic (e.g., thorns) of a crop.

**GM Techniques Include:** 



## **Conventional Breeding**



## Genetic Engineering (GE)

Example:

Pollinating a crop with the pollen of a closely related crop.

Example:

Using biotechnology to insert DNA from a plant or organism into a crop.

GOAL: Create a better crop



GOAL: Create a better crop

You might hear:

- -Hybridization
- -Sexual Propagation
- -Cross-Pollination



You might hear:
-Biotechnology

- -Gene Insertion
- -Genome Editing

So easy a bee can (and does) do it!

Typically faster to create new varieties!

Most all crops on the market are the result of years (sometimes 1,000's of years) of conventional breeding!!

Only 9 GE Crops on the Market

Alfalfa Cotton Sugar Beets
Canola Rainbow Papaya Yellow Squash
Corn Soybeans Zucchini

## **BOTTOM LINE**

Conventional breeding and GE are both used to genetically modify crops.

Both types must pass the same safety standards before they are released into the market.

